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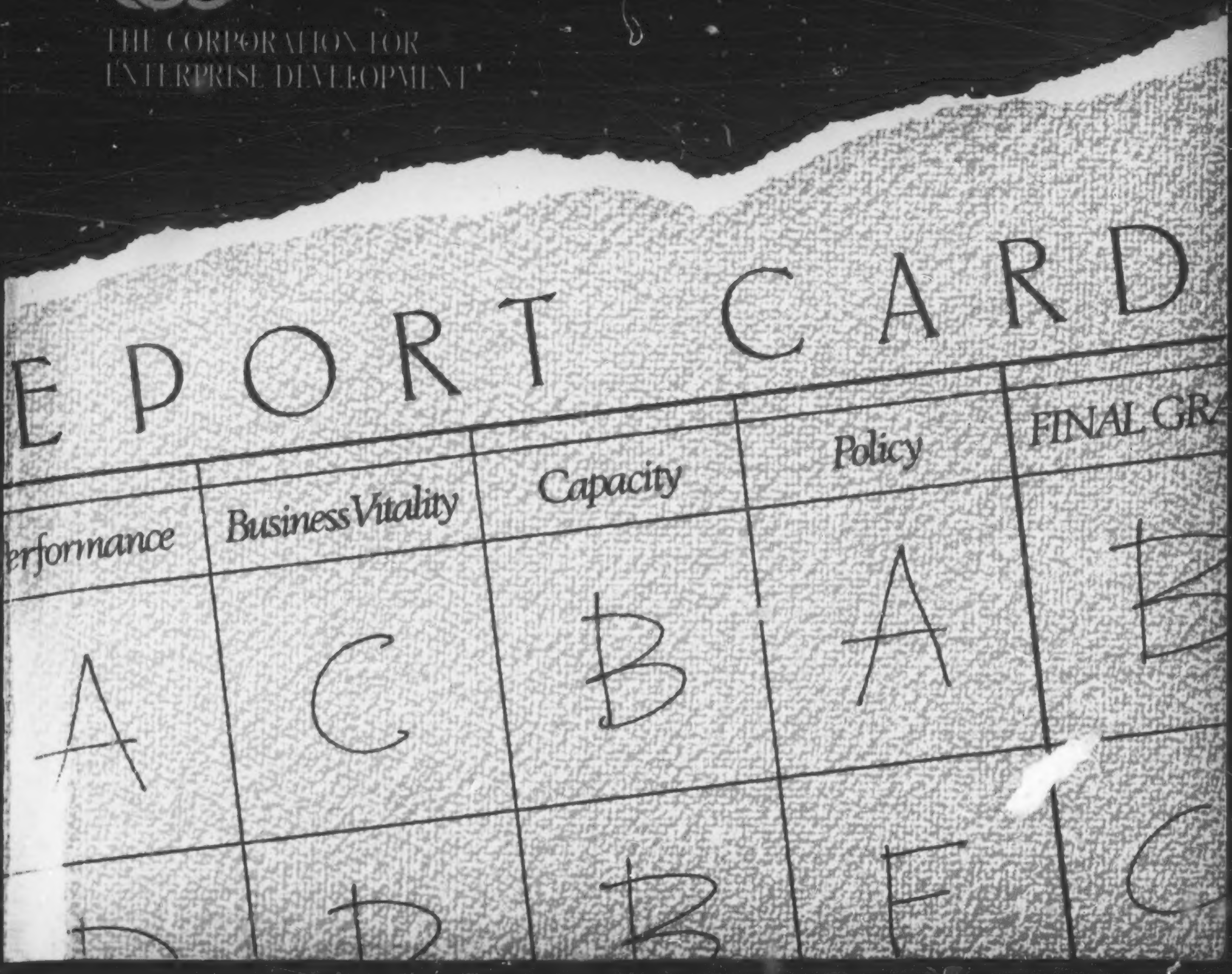
MAKING THE GRADE:

The 1988 Development Report Card for the States

THE CORPORATION FOR
ENTERPRISE DEVELOPMENT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MAKING THE GRADE:

The 1988 Development Report Card for the States

April 1988

THE CORPORATION FOR ENTERPRISE DEVELOPMENT
with
MT. AUBURN ASSOCIATES

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In many ways, the preparation of this second edition of *Making the Grade: The Development Report Card for the States* was more difficult than the first. The very acceptance of the first edition meant that we needed to meet higher levels of quality and accuracy. To do so would have been impossible without the dedication, thoughtfulness and care of many institutions and individuals.

This edition would not have been possible without the support of the corporations, unions and foundations listed on the back cover. The diversity and continuity of this sponsorship is testimony to the commitment of these institutions to promoting general economic well-being, and to the belief that sound economic development is in everyone's interest. Within each of these institutions, of course, there are particular individuals who take it upon themselves to work with us and advocate for what may not be the least controversial of their undertakings. Our special thanks go to: Morton Bahr, Al Bilik, Lance Buhl, Larry Callahan, Norm Collins, Craig Kennedy, Michael Kuhlin, Jack Litzenberg, Toni Martinez-Burgoyne, Gerald McEntee, Glenda Reed, Jeff Ross, Al Shanker, John Sweeney, Michael Swenson, Susan Sechler, Bill White and Gene Wilson.

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Bill Nothdurft wrote the final draft of *Making the Grade*, contributing not only the elegance of his prose, but the breadth of his own experience and the acuity of his thought.

No project we have undertaken has made me prouder of my colleagues here at The Corporation for Enterprise Development than this one. Mitchell Horowitz bravely took over as project director midway in its preparation, and steered it through to completion with integrity, dedication and patience. Gary Prince developed the Performance Index, collected most of the *Report Card* data and forged new frontiers in computer wizardry. Bill Schweke developed the Policy Index, and Rona Feit added her expertise in designing the Transfer Payment Investment Index. Janet Topolsky managed the transformation of the document from draft to public distribution, ensuring that from the smallest grammatical rule to the largest conceptual assertion, the *Report Card* was of the highest quality possible. Deborah McGlauflin and Roger Coates helped develop support for the project. And our administrative staff — Vella Traynham, Dianna Harrison, Barbara Betts and Debby Manley — guaranteed that it all got done.

My thanks to all of them, and to all who will use *Making the Grade* to help their states make economic progress. In the end, we will take our grade on how much the *Report Card* helps in our mutual quest for a more vital and equitable economy.

Robert Friedman
President
The Corporation for Enterprise Development
April 1988

Prologue

Last year, the Corporation for Enterprise Development (CfED) published the first edition of *Making the Grade: The Development Report Card for the States*.

The response was astonishing.

As the weeks of media attention gave way to months of consultations with state economic development officials, business associations, regional organizations and others, it became clear that something important had happened: we had changed the boundaries of the age-old debate over "business climate."

It was probably inevitable. If we hadn't done it, sooner or later someone else would have. It was inevitable because the economy of big factories and mass production — the economy of Henry Ford and the "Arsenal of Democracy" — had changed and had been joined by a new generation of fast-moving, innovative, highly-adaptable entrepreneurs. And as the economy changed, the conditions important to economic development — and to the businesses that create that development — changed as well. The old economy was driven by quantity; the new economy is driven by quality. The old economy was fueled by brawn; the new economy is fueled by brains. The old economy was concerned with cost; the new economy is concerned with value. It only made sense that we needed a new way to measure which state economies have what it takes for businesses in the new economy to flourish and which, at least at present, do not.

As you might expect, we got a lot of very nice letters from the states that did well on last year's *Report Card*. What you might not have expected — certainly *we* didn't — were the supportive calls and letters we received from officials in states that did poorly. Over and over again they told us how difficult it had been for them to get senior officials and business organizations in their state to recognize that new jobs and businesses would be created by people already in the state, not by people lured from elsewhere; that there was a direct connection between their long-term investments — in education, sewer systems or road maintenance, for example — and their capacity to spawn, attract and support new business development; and that their workers were only as good as the schools that produced them. Because of their state's low grades on the *Report Card*, they were finally being heard.

The more we talked to these folks the clearer it became that a new consensus is developing: that we all live in a complex economy — part private, part public — and that partnerships between these two players are essential if the United States is going to regain the leading position in the global economic race. The competition is just too tough, the change just too rapid for the players not to cooperate in the challenge to create expanding and widely shared economic opportunity and growth.

CfED didn't create this emerging consensus, we simply documented it for the first time.

And now, for the second time. *The 1988 Development Report Card for the States* is, we think, a substantial improvement over our first effort. Some results are surprising, others confirm what we already suspected. All underscore how much we have yet to learn about what makes state economies "tick."

So we offer *The 1988 Development Report Card for the States* as a tool for all those enrolled in the race for the economic future.

The Race for the Economic Future

1988 will be remembered as a year of races. Presidential races. Winter Olympic races. Summer Olympic races. But the most important race of all has already been underway for several years: the fifty American states, along with the developed nations of the world, are in a race for the economic future — a race for leadership and dominance in the global economic marketplace. In the past, the United States was always the odds-on favorite, but that is no longer the case. Today, the competition is stiffer, the field is wide open, and the stakes are higher than they have ever been before.

The Economy Goes Global and the Players Change

America's economy, once the dominant producer of consumer products for an expanding world of eager buyers, today faces unprecedented international competition for virtually every product and service we produce.

At first, we yielded to Third World "copycats" — countries which had copied our mass production systems and undercut us on price by paying their workers pennies per day. Then, slowly at first, but with increasing speed and persistence, our competitors began competing — and winning — on a playing field we thought was ours alone: technological innovation and quality. Today, we find ourselves toe-to-toe with competitors who are producing goods and services more innovative, more technology-intensive, and more highly valued by the world's consumers than our own.[1]

It took us a while to realize what was happening. In the meantime, our big manufacturing industries declined. Factories cut back. Some closed altogether, occasionally shipping themselves overseas. Laid-off workers waited to be called back to jobs that no longer existed. As plants contracted or closed, entire communities suffered.

We were so busy trying to cope with the wrenching human and community effects of these gloomy events that we nearly missed what was really going on: *A new economy was being born.* The American economy — stunned, but still awesomely powerful — was fighting back. Old businesses were restructuring. New businesses were being formed. And *both* were doing things very differently than before.

The Challenge of Adding Value

It turns out that it isn't smallness, or newness, or even whether they are in declining or growing industry sectors that accounts for the success of America's growing businesses. What matters is how they operate and the quality of what they produce.

Given the cost advantage Third World competitors hold, we win not by trying to make more of something cheaper, but by making something better. Under the new rules of global economic competition, businesses win by innovating constantly — by repeatedly creating and improving products and services, inventing more efficient production systems and technologies, and identifying and penetrating new markets — in short, by *adding value*. It is this characteristic of creating incremental increases in value that best defines the businesses that are succeeding in today's economy, not whether they are big or small, old or new.

A quick look at the rapidly-growing firms that are members of the American Business Conference (ABC) tells us a lot about what it takes to lead in this economy. Businesses that are members of ABC consistently post growth in excess of 15 percent per year. From 1981 to 1986, ABC firms increased their foreign sales by 20 percent a year, five times the record of other American firms. Are these "high fliers" all new small businesses? No, a number are large and have been in business for years. Are they all "high tech" companies? Not at all. They include companies from every sector of our economy: manufacturing, service, finance, real estate, high tech and low tech. What they have in common is that they compete on the basis of quality, innovation, service to customers, flexibility to meet changing needs and astute marketing — not cost. They are constantly adding increments of value to their products — a new idea here, a bit of new technology there.[2]

Only by adding value can we remain competitive and offer our citizens chances for increased standards of living. The alternative is to impoverish ourselves so that we can compete on costs — not an alternative many would desire.

Value-Adding Partnerships

Precisely the same characteristic — a commitment to adding value — is what distinguishes the states that are the leaders on the *1988 Development Report Card*. For some years now, the high-scoring states have been making conscious, incremental investments in their ability to support and assist businesses in the challenge of economic development.

The notion that state governments can be partners with business is still quite new. For years, many have argued that the best thing government can do for business is "stay out of the way." But in today's complex, rapidly changing and intensely competitive economy, that's a false option.

In fact, government has always been a key player in the economy. The general direction of the economic race has been and continues to be affected by macroeconomic decisions made largely by the federal government — trade policy, fiscal policy, monetary policy and so forth. Slight adjustments in federal policies can cause significant shifts in the fortunes of industry.

But in today's economy, the specific

standings of the competitors in the economic race — the businesses that are "in the running" — are often influenced by microeconomic decisions made largely by state and local governments. The reason has to do with the special needs of the businesses that are the new leaders in our economy and the role state governments play in serving those needs:

- The new competitors depend upon the ready availability of skilled and adaptable technicians and workers. The adequate supply of these workers depends upon the decisions state and local governments make about investments in primary, secondary and higher education.

- Many of these businesses are too small to be able to afford the kind of remedial education and training programs currently run by big corporations to upgrade the skills of the adult workforce, so state investments in adult education directly affect their competitiveness.

- The start-up and expansion of such businesses depends on how available and accessible the right kinds of capital are at the right times. This depends, in turn, on the willingness of private investors (individual and institutional) to accept prudent risks with the potential for future return. States can influence capital markets, both directly through their own investments, and indirectly by how they regulate financial institutions, to help ensure that these needs will be met.

- The ability of these businesses to attract and retain the talented employees they need is affected directly by the quality of life in the communities where they are located. Creating and preserving quality of life is a fundamental responsibility of state governments.

- These businesses depend upon a steady stream of new technologies and ideas. The environment for innovation in any state is determined, in part, by the extent to which research and development is encouraged and supported.

- Finally, the ability of these businesses to expand and thrive depends, in part, upon the regulatory environment established by state governments and — for would-be or budding entrepreneurs — the degree to which those governments are able to provide management and technical assistance to help them grow.

For the competitors in this new economy, the determinants of the economic climate in a state are very different than they once were. For example, within reasonable limits it's not how high taxes are that's important, but what value you get for them — in schools, highways, quality of life and public safety. Within reasonable limits, it's not how high wages are, but whether the productivity of the workforce is worth the wages it gets paid — whether it has the kind of adaptable skills needed in businesses where the tasks may change every few weeks, or even daily.

In short, both for businesses and state government, adding value is the central challenge of today's economic competition. The states which have committed themselves to adding value — to long-term investments in the skills of their workforce, the condition of physical infrastructure, the accessibility of financial capital, the quality of their research institutions, the viability of communities both rural and urban, and the attractiveness of the environment — have become partners with the businesses competing in the race for the economic future. And together these partners are drawing ahead of the pack as the economic race continues.

Is there any objective proof of a relationship between the competitiveness of businesses and the investments made by the states in which they are located? We turn again to the American Business Conference for one answer:

> *Last year, 75 percent of ABC's member firms were located in states that scored A or B on the 1987 Report Card's Performance Index, 72 percent in states that scored A or B on the Business Vitality Index, 84 percent in states that scored A or B on the Capacity Index (61 percent in A states alone), and 73 percent in states that scored A or B on the Policy Index.*[3]

Expanding Economic Opportunity

Perhaps the greatest challenge facing our nation is to expand economic opportunities for all people and all regions. A commonly heard comment across all states is: "Actually, we are not one, but two states." One part — usually metropolitan — is doing quite well, and the other — most often rural or burdened by plant closings or chronic poverty — not only is not doing well, but is slipping further behind. Indeed, the measures of disparity, between rural and urban, and between inner city poor and mainstream suburban, appear to be growing.[4]

There are abiding social and ethical concerns with these divisions. What we try to highlight in the *Development Report Card*, however, are the economic concerns. Just as equipment or buildings not maintained and upgraded decay or fall obsolete, so do people not educated and communities not invested in fall behind. The resulting unemployment, poverty, crime and illness impose costs on the rest of society. More importantly, the productive capacity of people remains untapped.

Many development practitioners looking for ways to create and expand businesses — and thereby jobs, income and wealth — quickly pass over distressed communities, seeing little potential. But there is far more going on in these distressed communities than easily meets the eye. Evidence abounds of the potential for entrepreneurial renewal in distressed communities. In rural Iowa, in the midst of the collapse of the farm economy, new businesses formed in 1980 and still in existence in 1986 had added 49,499 jobs or 12.71 percent of total employment in rural Iowa.[5] In chronically poor urban communities too, people are starting businesses which hold the seeds of renewal. The poor in the Midwest are twice as likely to try self-employment as their non-poor fellow citizens.[6] (See *Appendix B* for a fuller discussion of the *Report Card* findings for rural states.)

Taking the Measure of State Economies

Trying to record the standings of the competitors in the race to the economic future is no mean feat. Every state economy is different, and every business has different requirements for growth. The big question is: how can we recognize a state with an economic climate capable of supporting business development — that is, a state where all the actors are doing their part to meet the challenge of adding value?

Last year we said that the answers to four questions can present us with a pretty accurate picture of the economic health and attractiveness of state economies. This year, while we have improved or replaced some of the individual measures we use, the organizing questions remain the same:

1. *How well is the state's economy performing?*

The bottom line on how an economy is doing — and a major indicator of whether it offers a good place for businesses to grow — is its current performance, that is, how well it is doing its job of providing citizens opportunities for employment, income and an improving quality of life.

2. *How vital are the businesses in the state?*

The vitality of any state economy is driven by the vitality of the businesses that compose it — how competitive they are, how diversified they are and how many new businesses are being created each year.

3. *What is the state's capacity for continued growth?*

Given the needs of today's and tomorrow's businesses, *their* future is tied directly to the investments a state makes in *its* future — in strengthening the skills of today's and tomorrow's workforce, in building its technological capacity, in improving capital availability and accessibility, in maintaining its physical infrastructure, in enhancing amenities and in investing in distressed communities.

4. *What policies has the state established to support business growth and expand individual opportunity?*

We know now that state policy decisions can and do have important effects on the development process. We also know that the states which led last year's *Report Card* participated in and often initiated partnerships with the business community to foster or alter the course of economic development. Given these new realities, the question, slightly rephrased, is this: is the state an active member of the team, or just a bystander?

Thus, in simplest terms, the objective of *The Development Report Card for the States* is to ask the kind of questions that will illuminate how well states, their citizens, and their partners in private industry are doing in the race for the economic future.

But this is easier said than done. When you ask "the right questions" about state economies for the very first time, as we tried to do last year, there are formidable data problems. If you ask questions no one has asked before, the chances are the answers will not be readily available. No one will have been collecting data about them. We are forced, in these cases, to use "proxies" for the precise information we want. Sometimes, even proxies are unavailable.

In the year since the first edition of the *Report Card* was published, we have worked to strengthen the measures we use and abandon those that either cannot be strengthened or, worse, turn out not to measure what we thought they did. In measuring economies, as in all things, practice makes perfect.

This year, the Performance Index has been refined only slightly, and comparisons in the standings from last year to this can be made with confidence. The Business Vitality Index is almost completely overhauled. It still measures vitality, but it does so with new measures that are much more sensitive than they were last year. Even with this increased sensitivity, the data available to measure the vitality of businesses in the new economy leave a lot to be desired. The Capacity Index is refined this year as well, but not as extensively as Vitality. And finally, many new measures have been added to the Policy Index, and have been gathered into different groups than last year. But the overall approach is similar, and there are few major differences in the Policy results. These changes are discussed in the beginning of each Index chapter.

The central point, however, is this: what we have done is to seek answers to the basic questions people ask about an economy. How is it doing? How competitive are its businesses? Are investments being made for the future? We emphatically do *not* look around for easily collected data or precise mathematical models and then try to describe economies in these largely artificial terms. Our method may be a bit less precise, but it's based on how development really happens. And the results prove it.

Why a Report Card?

We present the results of this analysis as a "report card" for several reasons.

First, because economies are complex and the needs and interests of readers differ, no single "subject" is sufficient to characterize how competitive a state economy is. We have chosen four distinctly different, though related, indexes — or "subjects" — which, taken together, present a more comprehensive review of each state.

Second, numerical rankings obscure similarities among states and tend to take on an importance out of proportion to their real value. Instead, we assign "grades" — from *A* to *F* — to states with relatively similar levels of performance: the top ten states receive *A*'s; the next ten receive *B*'s; the middle fifteen receive *C*'s; the next ten receive *D*'s; and the final five receive *F*'s. As in school, there can be differences in actual scores within these grades but, given the imprecision of the data available, grade ranges are as close as we believe anyone can reasonably come in sorting out the overachievers and underachievers.

Third, as with school report cards, these grades are relative — that is, where an individual state stands depends on the overall performance of all the other members of the "class." A state with a low grade may be making great strides in improving its own performance, but if all the other states are improving as well, the grade may not change dramatically.

Finally, any report card includes an implicit assumption that there is still room for improvement, and that is certainly the case with state economies. There is no fixed goal; in the race for the economic future every competitor has the opportunity to improve his standing — even if he is only improving on his own past record. The grades assigned, particularly the *D*'s and *F*'s, are less a judgment than they are an indication of the opportunity for improvement.

The Big Picture: The Summary Results

The Leaders

The states in the Northeastern "megalopolis" — the heavily urbanized and developed stretch of the East Coast from Washington, D.C. to Boston — continue to set the pace in the nation's race to the economic future, just as they did last year. Employment and income continue to rise, businesses continue to grow, and the states themselves are continuing to invest in future growth, not content to "coast." This year, five of the six states that earned all *A*'s and *B*'s on the *Report Card* are from this booming region: Connecticut, Massachusetts, Maryland, New Jersey and Vermont. Only Minnesota is outside the region.

The Contenders

The next tier of states — those with only one grade below an *A* or *B* — include California, Delaware, Maine, Pennsylvania, Virginia, Washington and Wisconsin. Some of these states in the second tier are among the up-and-coming states in the nation, while others are long-term economic stalwarts working hard to address the challenges of a changing economy.

The Pack

The twenty-five states found in the pack — each earning *C*'s or worse in at least two of the Indexes — come in several different varieties. Most encouraging are a handful of states found mostly in the industrial Midwest and the New South that are generally lagging behind the top states in economic performance, but have established policies and investment commitments to turn their economies around. These states could very well be the "new challengers" in the years to come. They include Arkansas, Florida, Indiana, Michigan, New York, North Carolina, Ohio, Oregon, South Carolina and West Virginia — all of which earn either an *A* or *B* in the Policy Index.

Also in the pack are states which are best described as "coasting." These states tend to have well-performing economies but weak foundations. They lag other states in the policies and investments in capacity-building needed to power their own growth. Most prominent here are New Hampshire and Rhode Island, which largely benefit from their proximity to the robust Boston metropolitan area.

A notch below these coasting states are a number of states which display average or slightly better economic performance but average to weak efforts in development policies. They include Arizona, Colorado, Georgia, Hawaii, Illinois, Missouri and Utah.

Finally, in the pack are a number of states hard hit by recent economic shocks, which are beginning to put policies in place but can do more. They include Alaska, Iowa, Kansas, Montana, New Mexico and Texas.

The Trailing States

Bringing up the rear are states with three grades of either *D* or *F*, or states with at least two grades of *D* or *F* and no grades above a *C*. These include several rural states -- remote from centers of economic activity, many highly dependent upon energy development and other commodity industries and, in the case of the Southern states, still trying to overcome a legacy of poverty. These rural states tend to have little value-added in their economies. Several of the rural energy and commodity-producing states have essentially "colonial" economies: they export raw materials and import finished goods. While commodity prices were high these states thrived. But when the prices collapsed, they were left unprepared for the challenge of rebuilding and diversifying. These include Mississippi, Kentucky, Idaho, Nebraska, South Dakota, North Dakota and Wyoming. Other trailing states include those with energy dependent economies, namely Louisiana and Oklahoma. Joining them with only one grade not in the *D* or *F* range are Alabama, Tennessee and Nevada.

What ties these trailing states together is an absence of either the kinds of investments in future development capacity needed to get them through these difficult times or, for many, the kind of development policies which would help them out of their current predicament. Many of these states held similar rankings last year and appear to have made little progress in the race to the future.

Common Themes

One of the most illuminating results of the *Report Card* is how frequently state scores correlate across Indexes. States in the lead — like Massachusetts, for example — are in the lead on every Index, and frequently in each subindex as well. At the opposite extreme, states that trail the pack tend to do so across the board.

Perhaps the most encouraging overall finding is the aggressiveness with which states facing the most severe challenges of economic restructuring (and in the Southeast, of persistent poverty) are taking control of their own economic destinies. Four of the ten *A*'s in Policy were earned by the Midwestern states of Michigan, Ohio, Indiana and Wisconsin as they respond to the sharp challenges of restructuring in manufacturing. The honor grades earned by South Carolina, North Carolina, Arkansas and Florida are even more encouraging. Their assaults on the joint legacies of poverty and under-investment promise rapid advances toward parity with the more developed states in the nation.

More sobering, however, is the extent to which economic disparities — between metropolitan areas and rural regions, between vibrant suburbs and distressed urban neighborhoods, between whites and minorities, and men and women — continue to offset the advances achieved by many states. The standings of states like California, New York and Georgia, among others, would be higher were it not for these disparities.

Finally, we note that the rural states that depend on energy and commodity production face a potentially long period of stagnation before lasting improvements in their economies are likely. A quick increase in oil or commodity prices or reduction in the dollar may lift their economic spirits, but an apparent shortage of strategic development policies and a history of underinvestment in the building blocks of economies indicate that they are poorly prepared to face the long-term economic challenges of the future.

Cautions

A caution is in order as we turn to the Indexes themselves: all of these rankings are *relative*. The fact that a state's position has changed since last year may, in fact, be due to changes in the measures we use. But even more likely, changes in state positions may be due as much to the actions of others as to their own actions. In short, it may simply be that Satchel Paige was right: "They may be gaining on you."

The 1988 Development Report Card

	Performance Index	Business Vitality Index	Capacity Index	Policy Index
Alabama	D	B	D	D
Alaska	D	C	C	C
Arizona	C	B	B	D
Arkansas	D	B	F	B
California	C	A	A	B
Colorado	B	C	A	C
Connecticut	A	B	A	B
Delaware	A	A	A	C
Florida	C	B	C	B
Georgia	C	A	C	D
Hawaii	B	C	B	D
Idaho	D	C	D	F
Illinois	C	D	B	C
Indiana	B	C	D	A
Iowa	C	F	C	C
Kansas	C	C	C	C
Kentucky	D	C	F	C
Louisiana	F	D	D	D
Maine	A	A	D	A
Maryland	A	A	A	B
Massachusetts	A	B	A	A
Michigan	C	C	B	A
Minnesota	B	B	A	A
Mississippi	F	F	F	C
Missouri	B	F	C	C
Montana	D	C	C	C
Nebraska	C	F	C	F
Nevada	A	D	D	F
New Hampshire	A	A	C	D
New Jersey	A	A	A	B
New Mexico	F	A	C	C
New York	C	C	B	A
North Carolina	C	C	C	B
North Dakota	C	C	D	F
Ohio	C	D	B	A
Oklahoma	F	D	D	F
Oregon	C	C	B	B
Pennsylvania	B	D	A	A
Rhode Island	A	D	C	C
South Carolina	C	B	D	A
South Dakota	C	D	D	D
Tennessee	D	C	D	D
Texas	D	B	B	C
Utah	B	D	C	C
Vermont	A	A	B	B
Virginia	B	B	B	D
Washington	B	A	A	C
West Virginia	F	C	F	B
Wisconsin	B	F	B	A
Wyoming	C	D	C	D

Endnotes

1. This is not to say that exchange rates, trade, monetary or macroeconomic policy have not and will not play a role in determining global economic competitiveness. They have and they will. If we focus on microeconomic actions and policies in the *Development Report Card*, it is because states have little to say about national and international policies. Without in any way denigrating the importance of such policies, we do believe that microeconomic policies and practices at the state, local and firm levels will play a significant — and often under-appreciated — role in the battle for competitiveness. The endurance of U.S. trade deficits after huge exchange rate differences, the general perception of U.S. goods as inferior in quality, and the unquestioned success of many American firms in the face of disadvantageous national and international policies evidence the significance of microeconomic policies and practices. See, for example, American Business Conference, *The Challenge of Global Competitiveness: Views of America's High Growth Companies* (Washington, D.C.: American Business Conference, 1987).

2. McKinsey & Co,. *Winning in the World Market* (Washington, D.C.: American Business Conference, 1987).

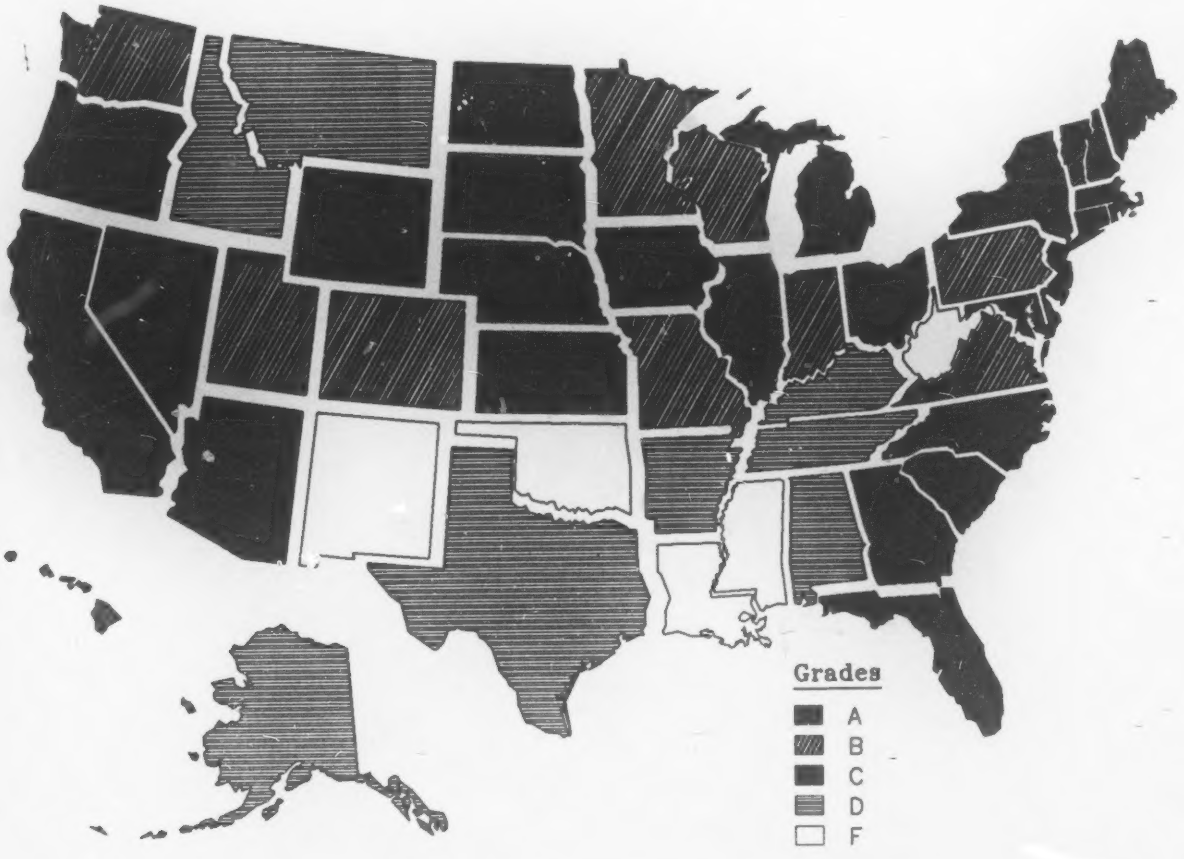
3. American Business Conference, "Making the Grade and the ABC Companies: A Validation," staff paper, American Business Conference, Washington, D.C., August 24, 1987.

4. The share of income in all population deciles except the two highest declined between 1977 and 1984, according to the Congressional Budget Office, *The Changing Distribution of Federal Taxes: 1975-1990* (Washington, D.C.: Congressional Budget Office, 1987). For increases in urban-rural disparities, see U.S. Department of Agriculture, Economic Research Service, Agriculture and Rural Economy Division, *Rural Economic Development in the 1980's: Preparing for the Future* (Washington, D.C.: Government Printing Office, July 1987).

5. Mark Popovich and Terry Buss, *Rural Enterprise Development: An Iowa Case Study* (Washington, D.C.: Council of State Policy and Planning Agencies, 1987).

6. Wisconsin Department of Development, *Expanding Self-Employment Opportunities in the Great Lakes States* (Madison: Wisconsin Department of Development, 1987).

1 The Performance Index


Grades
A
B
C
D
F

Performance Index Report Card

	Employment Subindex		Earnings/ Job Quality Subindex		Equity Subindex		FINAL GRADE	
	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade
Alabama	35	C	34	C	44	D	42	D
Alaska	48	F	32	C	22	C	39	D
Arizona	11	B	25	C	32	C	21	C
Arkansas	28	C	43	D	49	F	44	D
California	16	B	16	B	40	D	26	C
Colorado	33	C	14	B	10	A	15	B
Connecticut	14	B	1	A	13	B	6	A
Delaware	5	A	23	C	11	B	8	A
Florida	8	A	36	D	31	C	27	C
Georgia	9	A	19	B	42	D	22	C
Hawaii	18	B	13	B	19	B	12	B
Idaho	31	C	47	F	35	C	42	D
Illinois	44	D	10	A	41	D	33	C
Indiana	25	C	18	B	3	A	11	B
Iowa	44	D	37	D	16	B	34	C
Kansas	20	B	26	C	25	C	23	C
Kentucky	41	D	43	D	42	D	45	D
Louisiana	50	F	42	D	47	F	49	F
Maine	3	A	16	B	24	C	9	A
Maryland	10	A	5	A	6	A	4	A
Massachusetts	13	B	2	A	4	A	3	A
Michigan	40	D	12	B	28	C	29	C
Minnesota	20	B	6	A	30	C	14	B
Mississippi	42	D	49	F	50	F	50	F
Missouri	25	C	28	C	14	B	20	B
Montana	44	D	50	F	11	B	41	D
Nebraska	29	C	37	D	21	C	32	C
Nevada	5	A	35	C	4	A	10	A
New Hampshire	1	A	4	A	1	A	1	A
New Jersey	15	B	3	A	7	A	5	A
New Mexico	35	C	48	F	45	D	46	F
New York	30	C	7	A	34	C	23	C
North Carolina	11	B	21	C	39	D	23	C
North Dakota	24	C	46	F	29	C	35	C
Ohio	35	C	21	C	27	C	31	C
Oklahoma	47	F	45	D	36	D	46	F
Oregon	32	C	31	C	18	B	30	C
Pennsylvania	35	C	9	A	22	C	19	B
Rhode Island	2	A	8	A	2	A	2	A
South Carolina	25	C	29	C	45	D	35	C
South Dakota	23	C	40	D	15	B	28	C
Tennessee	18	B	37	D	47	F	39	D
Texas	35	C	32	C	33	C	38	D
Utah	17	B	27	C	16	B	16	B
Vermont	7	A	14	B	8	A	7	A
Virginia	3	A	11	B	37	D	13	B
Washington	20	B	24	C	20	B	18	B
West Virginia	49	F	41	D	38	D	46	F
Wisconsin	34	C	19	B	8	A	17	B
Wyoming	43	D	30	C	26	C	35	C

1

PERFORMANCE

As each of the nation's fifty states races along the road toward increased global economic competitiveness, the Performance Index provides us with a kind of statistical glance over the shoulder at where we've just been. It is a progress report which asks: "How are we doing?" and "Are we on the right track?" But, as we noted last year, before you can answer questions like these, it's useful to try to understand why we pursue this thing called economic development in the first place.

People work in order to obtain the elements of what they perceive to be "a better life." For officials who worry about economic development, the challenge is to help assure that opportunities for people to obtain a better life are expanding and can be widely shared. The ideal way to find out whether people have such opportunities would be to *ask* them, but there is no practical way to do that. So instead, we need a few measuring tools to get at the answers.

What kind of measuring tools? Well, since obtaining the elements of a better life inevitably costs money, we need to know whether people have the opportunity to earn money. Are there enough jobs to go around? Do they pay enough so people can meet basic needs and put a little bit aside for the future? Do they provide related benefits, like health coverage? Is the number of jobs available increasing or decreasing? Is income increasing or decreasing? Does everyone have a fair chance of getting these jobs?

But not all the aspects of "a better life" can be measured in dollars. When people say: "This is a good place to live and work," they generally mean that it is attractive and safe — safe from crime, safe from environmental hazards, and so forth. If we want to know how an economy is doing, we need to know something about the quality of people's lives as well.

What the Performance Index does is stop each state economy at a point in time and takes its pulse. It doesn't tell us much about the future. It doesn't tell us who will do well in the race to the future. But it does tell us how we are doing, and that's a start.

This year, the Performance Index has four subindexes:

- *Employment*: the extent to which the economy is providing jobs for those who want them;
- *Earnings and Job Quality*: how people are compensated for the work they do;
- *Equity*: the extent to which the opportunity to work is widely shared; and
- *Environmental Health and Safety*: a rough measure of the environment in which people live when they're not working.

What's Different This Year

Several measures that were in last year's Performance Index are *not* in this year's, and others have been added. In the Employment subindex, for example, we dropped *Status of Displaced Workers* because it was redundant with *Duration of Unemployment* and distorted the employment picture in some states.

In the Earnings and Job Quality subindex (which combines two of last year's subindexes), we changed several indicators in order to provide a sharper picture. For example, we use *Average Annual Pay* this year instead of *Earned Income Per Capita* and *Hourly Manufacturing Earnings* because it better reflects what people actually earn on the job, focuses only on those who work, and is not limited to just one industrial sector. For the same reason, we replaced *Income Change Per Capita* with *Average Annual Pay Growth*. In addition, last year we measured the *Number of Working Poor* as one way of gauging the quality of the jobs in a state's economy. We still think that measure is useful, but the measure was based on 1980 Census data — too old, in a rapidly changing economy, to be of much practical use. We dropped *Job-Related Deaths* as a measure of job quality because it was both inaccurate and misleading.

In the Equity subindex, we dropped *Distribution of Income* because data were not available for this year. In addition, we concluded that *AFDC Benefits as a Percentage of Per Capita Income* had less to do with Performance than with Policy and moved it to that Index.

Finally, in the Environmental Health and Safety subindex, we added a composite *Environmental Quality* measure and dropped *Life Expectancy*, a measure we found varied little from state to state. In addition, given the continuing difficulty of acquiring useful measures of quality of life, we do not figure these measures into the Index totals this year.

Subindex One: Employment

As a practical matter, people gauge how an economy is doing by whether they have a job or not. The availability of jobs is the most basic way to illustrate the extent to which the benefits of economic activity in a state are widely shared. We use three direct measures of employment in this subindex: employment growth, the unemployment rate, and duration of unemployment.

Employment Growth

In any state economy, jobs are continually being created or eliminated. The more energetic and flexible the economy, the more this is true. Measuring job growth does not tell us whether the jobs being created pay as well as those being eliminated, or who is getting the new jobs, or, for that matter, whether employment growth isn't simply a reflection of population growth. But it does tell us how quickly an economy is expanding, a key indicator of performance. This year, we measure the percentage of employment growth between 1985 and 1986.

Unemployment Rate

Even if a state's economy is expanding, some people may be left behind. The most accepted measure of the mismatch between jobs and job-seekers is the unemployment rate — the number of people who are looking for work or waiting to be called back to a job from which they have been laid off. Here too, the measure is imperfect. It doesn't tell us anything, for example, about those who have become so discouraged by their inability to find work that they have dropped out of the labor force entirely. But despite these flaws, this is the best measure available.[1]

Unemployment Duration

We need to know more than simply *how many* people are unemployed; we need to know *how long* they have been in that position. Unemployment can occur for a variety of reasons, not all of them negative. Indeed, a worker's ability to move from one job to another is a measure of the range of opportunity in the state and the flexibility of the worker's skills. Long-term unemployment, on the other hand, may indicate that the economy is failing to produce jobs, that the jobs being created and the skills of the workforce don't match, or that the hiring of some kinds of workers is being restricted in some way. This indicator measures those who have been jobless for more than 27 weeks — the point at which unemployment benefits normally expire. Because only those still looking for work are included in this measure, we do not have a way to identify those who have given up and dropped out.

Subindex Two: Earnings and Job Quality

All jobs are not created equal. One of the most jarring impacts of the rapid restructuring of the American economy during the 1980s has been the decline of well-paid, low-skill jobs and the rise of low-paying, moderate-skilled jobs. Caught in between are people who once could support a family by their labor and now cannot. Many of the new full-time jobs being created in our economy pay wages at or below the poverty level. As a consequence, we need to know not just *how many* jobs are being created, but also *how good* — in terms of wages and benefits — they are. This subindex, therefore, measures: average annual pay, change in average annual pay, and the only job-related fringe benefit for which data are readily available, health coverage.

Average Annual Pay

Average annual pay — that is, the total annual pay of all employees covered by unemployment insurance in a state, divided by the average monthly number of employees — provides a clearer picture of what working people can expect to earn from their jobs than does "earned income per capita" because it is based only upon those who are working in the state, not the total number of people in the state. Moreover, these payroll data include bonuses, tips and gratuities, paid vacation, and employer contributions to deferred compensation plans, among other things — not just wages. With few exceptions, all full-time and part-time employees of covered firms are reported, including production and sales workers, corporation officials, executives, supervisory personnel and clerical workers. Excluded are agricultural workers on small farms, most railroad employees, most non-profit organization employees and all members of the Armed Forces.

Average Annual Pay Growth

This measure converts the point-in-time "snapshot" of average annual pay into trend data, measuring the change from 1985 to 1986. Like employment growth this measure aims to portray how much improvement there is in each state's economy.

Health Coverage

The benefits that American workers have come to expect as part of their compensation for work are not being provided by many of the new jobs being created in today's economy. Of these benefits, employer-sponsored health coverage is perhaps the most important. In 1985, 17.4 percent of the civilian nonagricultural population had no health coverage, up sharply from 15.5 percent only three years earlier [2]. If the objective of economic development is to help individuals achieve a better life, then we need to know something about the *quality* of the jobs that the economy is creating. Understanding the extent to which state economies are meeting the health coverage needs of their citizens is one important clue to that quality, and it varies significantly from state to state.

Subindex Three: Equity

Asking the question, "How is the economy doing?" begs another question: "For whom?" Any evaluation of a state economy must be based not just upon the gross employment and income in the state, but upon the distribution of opportunities to gain employment and income as well. An economy is only as strong as its weakest link. The distribution of opportunity — how widely that opportunity is shared — has significant effects on how vital and attractive a state's economy seems to others, because the effects of inequitable distribution are often only too visible: poverty, crime, blighted neighborhoods, social discord, diminished productivity and wasted human talent.

Thus, the performance of a state economy is determined in no small part by how economic change affects the least advantaged and by the extent to which the best jobs in the state are equitably distributed. As elsewhere, the absence of direct measures means we must approach these questions indirectly. We use three proxy measures: the poverty rate, black income as a percent of white income, and — to begin to understand the geographic distribution of opportunity — non-metropolitan unemployment vs. metropolitan unemployment.

Poverty Rate

The number of individuals in a state who live below the federally-established poverty line presents a concrete measure of both performance in general, and equity in particular. An economy with a high percentage of people below this line — whether they work or not — is not fulfilling its basic purpose of providing people with opportunities for a better life.

Black Income Relative to White Income

Income by race is an indicator of the distribution of opportunity across a state. Although states have made significant progress in expanding opportunity to all citizens, a racial divide still exists between black and white incomes. This measure indicates the extent of that divide.

Non-metropolitan/Metropolitan Unemployment

One of the more striking findings in last year's *Report Card* was that rural states in virtually every region tended to fare less well than their urbanized neighbors. Many state economic development officials have noted that the same phenomenon exists within states — that states often have two economies, one urban and generally thriving, the other rural and generally stagnant or declining. There are obvious exceptions: many central cities at the heart of booming metropolitan areas are economic wastelands, while many rural areas have found ways to diversify and thrive. There are no neat measures of the differences between rural and urban areas. As a start this year, we compare non-metropolitan (non-MSA) area unemployment rates with metropolitan (MSA) area unemployment rates, correcting the data so that MSA's do not cross state boundaries.

Subindex Four: Environmental Health and Safety

As the structure of the American economy has changed, the things that are most important to the people and businesses in that economy have also changed. Increasingly, "quality of life" is a driving factor in the decisions people make to raise a family and build a business in a given locale.[3] But what does it mean? Clearly, when people talk about the quality of life in a state, they are talking about more than just environmental amenities. They include a wide but still unfocused array of social, economic and psychological factors as well, from the state's level of effort to enhance and protect the environment, to educational quality, to cultural opportunities, to public facility maintenance, to whether the area seems safe. Some of these concerns are measured elsewhere in this report (*Human Resources* and *Amenities* in the Capacity Index; *Education* and *Amenities* commitment in the Policy Index). But here, as with other Performance subindexes, we are concerned about *outputs* — in this case: crime, environmental quality and infant mortality.

This year, despite a significant research effort — including Freedom of Information Act requests — we have concluded that the measures available to measure outputs simply do not accurately portray the most important elements of quality of life. Particularly with respect to basic environmental issues — drinking water quality, for example — the available data are either fragmentary or misleading. Consequently, we have chosen to display the results of the measures we were able to compile with some confidence as an Environmental Health and Safety subindex, but *not* to include them in the calculation of state economic performance. The measures thus chosen include:

Crime Rate

At the most rudimentary level, the quality of life of a state or region can be gauged by whether people are safe from harm. The higher the crime rate — whether it affects them personally or not — the less safe they are likely to feel. This crime rate, drawing on FBI data, addresses the most serious crimes: murder, rape, robbery, assault, burglary, larceny and motor vehicle theft.

Environmental Quality

An economy which produces a high degree of environmental pollutants is neither "attractive" to new business nor likely to be capable of providing livable conditions for its people over the long term. To get a handle on the environmental quality of states, this year we developed a composite measure, including:

- *Air Quality:* air pollution emissions.
- *Superfund Dumpsites*: the state's number of Superfund-designated toxic waste sites.
- *Hazardous Waste Generation.*

We use these factors not because they represent the full range of environmental quality concerns, but because they are the only factors for which we have consistent nationwide data.

Infant Mortality

Infant mortality rates are commonly used to measure the health of the population for reasons that go beyond the death of infants. Infant mortality correlates highly with the health and nutrition of the mother, which, in turn, provides us with some insight into the living conditions of the family as well as how accessible prenatal care services are.

Findings

The action, quite simply, is in the Northeast.

All six of the New England states earn *A*'s in the Performance Index, as the ripple effect of the booming Boston metropolitan economy continues to spread outward. Continuing the trend we noted last year, all but one of the states in the Northeast "megalopolis" — the rapidly urbanizing and growing region from Virginia to Maine — receive an *A* or *B*. With complex, diversified economies and strong information and technology industries, these states are "hot," as anyone who has tried to buy a home in this region knows only too well. The lone exception, New York, is close behind with a high *C*, its solid performance in earnings held back by the persistence of poverty conditions and relatively moderate employment gains.

"Split level" economies — booming metropolitan areas bordered by languishing rural or non-metropolitan areas, or burdened by the persistence of poverty amid economic growth — characterize a number of the states this year, including North Carolina, Georgia and Arizona, among others.

As was the case last year, the nation's older industrial states — Michigan, Ohio and Illinois, for example — continue to struggle to overcome the unemployment created by major structural economic change occurring in the last decade, even though, as we will see later, many of them are leading on other indexes.

Finally, the bottom of the overall Performance rankings is dominated by rural Southern and Western states. Many of these states have poorly diversified economies heavily dependent upon energy production (coal, oil and gas), mining and, to a lesser extent, agriculture. Others have a history of chronic poverty and have concentrated on hitching their fortunes to recruitment strategies designed to attract "footloose" branch plants through over-generous tax breaks and other incentives. Many of these companies have since moved overseas to even lower production cost environments, leaving the states which lavished incentives on them unprepared to generate their own sources of economic growth.

Employment Subindex Findings

The Employment subindex provides a remarkably clear snapshot of economic activity in the past year. As they do for the Index overall, the Northeastern states dominate the upper end of the list. But there are several notable exceptions, most of which have the "split level" economies we noted above: Florida, Georgia, Arizona and North Carolina. In each of these states there are booming metropolitan areas – transportation and banking hubs with vibrant business sectors — but the benefits of that growth are not widely shared either geographically or socially.

The bottom of this subindex is a stark

reflection of the collapse of the energy industry. Alaska's free-fall to 48th place continues the trend we saw last year in Louisiana, Oklahoma, West Virginia, Kentucky, Montana and Wyoming.

Earnings and Job Quality Subindex Findings

Despite significant changes in how this subindex is measured, the results are quite similar to last year's. The top of the list is led, once again, by Northeastern states, along with several Midwestern industrial states: Minnesota, Illinois and, just missing the Top 10, Michigan. In addition to the broad-based resurgence of the New England states in this list, the common thread among many of these leaders — New York, New Jersey, Connecticut, Minnesota, Illinois, Pennsylvania and Maryland — is that they have mature, urban-centered economies with a large stock of high quality, high-paying jobs and very strong finance and business services sectors. Many of these same states are less successful in the Employment subindex because, in many cases, this stock is not growing quickly.

The bottom of this subindex is populated by predominantly rural states with either chronic or acute low-wage problems. The chronic low-wage states include the Dakotas, Montana, Idaho, New Mexico and Mississippi. The states with acute conditions — Louisiana, Oklahoma and West Virginia, for example — have moderate average wage levels but are pushed to the bottom by low growth in wages in the last year, a phenomenon explained almost entirely by the collapse of the energy industry. The most extreme example is Alaska, which ranks first in average earnings in the nation, but last in wage growth. Indeed, it is the only state in the nation that posted a net loss in the earnings growth measure.

There are other stories hiding below the surface of this subindex as well. Nevada, for example, which rose to an *A* overall in the Performance Index largely on the strength of its employment growth, rates a *C* in this Earnings subindex — indicating that, while new jobs are being created, they don't pay particularly well and offer few fringe benefits. On the flip side of this story are New Hampshire and Rhode Island, states with average wage levels placing them 27th and 33rd, respectively, nationwide. But they are 2nd and 9th nationwide in growth in average wages. In short, the quality of the jobs in these states may be rapidly improving. To a lesser extent, but perhaps more importantly given how far it has come, Arkansas ranks 45th in average wages, but 21st in wage growth — good news for Arkansas workers. And a similar story is being played out in South Carolina and South Dakota.

Equity Subindex Findings

The Equity subindex measures the equity of economic outcomes, not social policies. It tracks a key component of economic performance: the extent to which economic opportunity, as measured by employment and earnings, is widely shared among segments of the population.

The results of this subindex tell us some interesting things about the relationship between economic growth and economic opportunity. First, the upper end of the Equity subindex is dominated by two kinds of states: those Northeastern states that are producing wholesale quantities of high-quality jobs, such as Maryland, New Jersey and Massachusetts; and another group of states in which the population tends to be homogeneous, such as Nevada, Vermont, Wisconsin and Montana.

In the mid-range of this subindex are

the major industrial states that we associate with having "liberal" social policies. Their relatively poor showing underscores the fact that such policies, in the absence of significant employment and earnings opportunities, can do little to break people out of poverty. But these states appear to have grasped this point; they are among the nation's leaders in the Policy Index measures designed to expand employment opportunities for the disadvantaged.

At the bottom of the Equity subindex is the South — both the "Old South" *and* the so-called "New South" — along with the Southwestern state of New Mexico. The common characteristic of all of these states is wide disparities between urban and rural, black and white, expanding economic opportunity and tolerating chronic poverty. But because, as we noted at the beginning of this chapter, this Index is "a glance over the shoulder to where we've been," the rankings of the several Southern states tell a bleaker story than they might if we could look ahead. The reason is that, in several of these states, initiatives are underway to begin strengthening the workforce of tomorrow through education reforms and creative use of transfer payments. Some years from now, we may see improvement. How much of this effort will be reflected in improved standings, however, will depend not only on the level of effort these states are currently making, but the effort their competitors are making as well. The rankings are relative. These states must improve faster than other states are improving to raise their position in this, or any other, subindex.

A measure of regional disparities in a state was added for this year's *Report Card*. This measure examines the disparities in unemployment rates between rural, non-metropolitan areas and metropolitan areas in a state. Not surprisingly, in all but four states, rural unemployment exceeded metropolitan unemployment. Even in highly rural states, these disparities in unemployment rate are significant — for instance, in Maine rural unemployment stood over 71 percent higher than in metropolitan areas in the state; in Idaho it was over 60 percent higher.

Performance Data

	EMPLOYMENT						EARNINGS AND JOB QUALITY					
	Employment Growth		Unemployment Rate		Unemployment Duration		Average Annual Pay		Average Annual Pay Growth		Health Coverage	
	%	Rank	%	Rank	%	Rank	$	Rank	%	Rank	%	Rank
Alabama	**2.40**	**21**	**9.8**	**46**	**15.9**	**37**	**17,638**	**36**	**3.61**	**24**	**64.3**	**32**
Alaska	-3.70	47	10.8	47	14.2	32	28,442	1	-0.88	50	62.4	39
Arizona	**4.91**	**2**	**6.9**	**28**	**8.9**	**9**	**18,870**	**21**	**4.62**	**13**	**62.0**	**41**
Arkansas	2.11	26	8.7	39	11.0	16	16,162	45	3.92	21	56.6	50
California	**2.66**	**18**	**6.7**	**25**	**11.0**	**16**	**21,995**	**6**	**5.00**	**10**	**61.5**	**43**
Colorado	-1.20	44	7.4	31	11.5	18	20,275	9	3.60	25	68.1	23
Connecticut	**2.52**	**20**	**3.8**	**2**	**13.6**	**29**	**22,516**	**4**	**6.08**	**3**	**77.5**	**2**
Delaware	3.27	11	4.3	5	8.3	7	19,639	14	2.57	37	69.2	17
Florida	**4.07**	**7**	**5.7**	**17**	**7.7**	**3**	**17,679**	**34**	**4.23**	**16**	**57.6**	**48**
Georgia	4.09	5	5.9	18	10.2	13	18,746	22	4.63	12	65.2	30
Hawaii	**2.70**	**17**	**4.8**	**9**	**17.0**	**41**	**18,101**	**30**	**4.41**	**14**	**70.7**	**12**
Idaho	-0.45	41	8.7	39	8.1	6	16,602	41	1.49	44	64.2	34
Illinois	**0.45**	**38**	**8.1**	**33**	**18.8**	**45**	**21,452**	**7**	**4.14**	**17**	**67.5**	**26**
Indiana	2.73	16	6.7	25	16.0	39	19,024	17	2.83	35	71.1	9
Iowa	**0.26**	**39**	**7.0**	**29**	**22.1**	**48**	**16,598**	**43**	**3.11**	**33**	**68.1**	**23**
Kansas	1.53	32	5.4	16	12.3	25	17,934	31	3.46	28	69.2	17
Kentucky	**2.14**	**24**	**9.3**	**45**	**18.1**	**43**	**17,357**	**37**	**2.46**	**38**	**62.0**	**41**
Louisiana	-4.20	49	13.1	50	18.6	44	18,290	28	0.41	48	62.7	38
Maine	**4.08**	**6**	**5.3**	**13**	**7.7**	**3**	**16,326**	**44**	**5.82**	**6**	**71.1**	**9**
Maryland	3.33	10	4.5	6	11.7	21	20,121	10	5.74	7	69.8	15
Massachusetts	**1.87**	**28**	**3.8**	**2**	**9.9**	**10**	**20,925**	**8**	**6.61**	**1**	**72.4**	**5**
Michigan	2.18	23	8.8	41	19.2	47	22,720	3	3.82	23	67.0	28
Minnesota	**1.41**	**33**	**5.3**	**13**	**12.6**	**27**	**19,630**	**15**	**4.32**	**15**	**71.3**	**8**
Mississippi	1.20	36	11.7	48	13.9	30	15,420	49	3.14	31	57.6	48
Missouri	**1.77**	**29**	**6.1**	**21**	**13.9**	**30**	**18,913**	**20**	**3.15**	**30**	**65.5**	**29**
Montana	-1.10	43	8.1	33	16.3	40	16,085	47	0.96	46	62.1	40
Nebraska	**0.52**	**37**	**5.0**	**10**	**15.8**	**35**	**16,106**	**46**	**3.14**	**31**	**68.3**	**22**
Nevada	4.97	1	6.0	19	7.7	3	18,739	23	3.08	34	63.3	37
New Hampshire	**4.87**	**3**	**2.8**	**1**	**4.9**	**2**	**18,303**	**27**	**6.38**	**2**	**78.3**	**1**
New Jersey	2.13	25	5.0	10	11.5	18	22,309	5	5.85	5	72.3	6
New Mexico	**1.38**	**34**	**9.2**	**44**	**12.5**	**26**	**17,301**	**38**	**1.84**	**41**	**57.8**	**47**
New York	2.00	27	6.3	23	15.7	34	23,200	2	5.93	4	64.2	34
North Carolina	**3.04**	**14**	**5.3**	**13**	**10.1**	**12**	**17,001**	**39**	**4.78**	**11**	**69.2**	**17**
North Dakota	-1.00	42	6.3	23	10.5	14	15,778	48	1.22	45	67.7	25
Ohio	**2.34**	**22**	**8.1**	**33**	**24.0**	**49**	**19,902**	**12**	**2.41**	**39**	**69.7**	**16**
Oklahoma	-2.20	46	8.2	36	15.8	35	18,345	25	0.82	47	59.0	45
Oregon	**2.57**	**19**	**8.5**	**38**	**14.5**	**33**	**18,322**	**26**	**2.72**	**36**	**67.1**	**27**
Pennsylvania	1.36	35	6.8	27	17.1	42	19,404	16	4.04	19	70.4	14
Rhode Island	**3.01**	**15**	**4.0**	**4**	**3.2**	**1**	**17,735**	**33**	**5.15**	**9**	**73.0**	**4**
South Carolina	3.26	12	6.2	22	18.9	46	16,600	42	4.09	18	68.8	21
South Dakota	**-15.00**	**50**	**4.7**	**7**	**11.7**	**21**	**14,477**	**50**	**3.50**	**27**	**64.3**	**32**
Tennessee	3.26	12	8.0	32	12.1	23	17,661	35	3.97	20	60.9	44
Texas	**-1.20**	**44**	**8.9**	**42**	**11.5**	**18**	**19,934**	**11**	**1.62**	**43**	**63.9**	**36**
Utah	1.60	30	6.0	19	10.7	15	17,863	32	1.63	42	74.2	3
Vermont	**4.01**	**8**	**4.7**	**7**	**9.9**	**10**	**16,857**	**40**	**5.21**	**8**	**71.1**	**9**
Virginia	4.17	4	5.0	10	8.4	8	18,972	18	3.88	22	70.7	12
Washington	**3.50**	**9**	**8.2**	**36**	**13.5**	**28**	**19,645**	**13**	**3.59**	**26**	**65.2**	**30**
West Virginia	-0.07	40	11.8	49	31.9	50	18,405	24	2.22	40	58.3	46
Wisconsin	**1.60**	**30**	**7.0**	**29**	**15.9**	**37**	**18,202**	**29**	**3.46**	**28**	**72.2**	**7**
Wyoming	-3.80	48	9.0	43	12.2	24	18,969	19	0.10	49	69.0	20

Please refer to *Performance Index Data Sources* and the *Performance Index* text for further detail on individual measures.

EQUITY						ENVIRONMENTAL HEALTH & SAFETY*									
Poverty Rate		Black/White Income		Nonmetro to Metro Unemp.		Crime Rate per 100 pop.		Environmental Quality						Infant Mort. per 100,000	
								Air Quality		Super. Dumps per million		Hazardous Waste			
%	Rank	%	Rank	%	Rank	Rate	Rank	%	Rank	Sites	Rank	Score	Rank	Deaths	Rank
20.6	47	53	48	127.6	19	4.3	17	2.340	50	2	20	1.61	43	12.6	46
8.8	5	68	19	156.5	42	6.2	40	0.473	23	0	1	0.09	1	10.8	30
10.7	12	68	19	225.7	50	7.3	48	0.620	36	3	24	0.30	7	9.7	17
22.9	49	55	46	144.1	32	3.9	9	0.041	11	4	34	1.60	42	11.6	40
13.6	25	65	26	163.7	45	6.8	44	1.362	47	2	18	0.60	20	9.5	13
10.3	10	71	11	142.8	30	7.0	46	1.330	46	5	37	0.46	14	9.4	12
7.6	2	60	42	111.0	10	4.8	26	0.802	42	3	21	1.25	34	10.0	21
11.4	15	62	35	92.9	2	4.8	26	0.000	1	28	50	1.39	39	14.8	50
13.4	24	61	40	122.5	16	8.2	50	0.484	25	3	29	0.24	4	11.3	36
17.7	41	56	45	139.9	27	5.5	32	0.466	22	0	1	0.53	17	12.7	47
10.7	12	69	15	145.6	35	5.7	36	0.000	1	0	1	0.16	2	8.8	5
16.0	37	73	8	161.7	44	4.2	15	0.217	16	4	33	1.29	35	10.4	25
15.6	33	60	42	145.5	33	5.5	32	0.596	35	2	19	1.33	37	11.7	41
12.0	19	76	7	117.3	13	3.9	9	0.242	17	5	38	1.75	46	10.9	32
18.0	42	71	11	104.1	5	4.2	15	0.000	1	5	36	0.65	21	9.5	13
13.8	27	65	26	126.1	17	4.8	26	0.423	21	3	27	1.00	29	9.3	10
19.4	46	64	28	152.6	39	3.1	4	0.506	28	3	22	1.23	33	11.2	35
18.1	43	49	50	143.0	31	6.1	39	0.171	15	2	13	3.05	50	11.9	43
11.9	17	88	3	171.6	47	3.5	8	0.258	18	6	39	0.26	5	9.1	7
8.7	4	70	14	140.7	28	5.6	35	0.780	40	2	15	0.67	23	11.9	43
9.3	8	64	28	110.8	9	4.7	24	1.930	49	4	30	0.73	25	9.1	7
14.5	30	69	15	140.8	29	6.5	42	0.500	27	8	44	1.29	35	11.4	37
12.6	22	69	15	154.8	40	4.4	19	0.040	10	9	46	0.46	14	8.8	5
25.1	50	50	49	149.5	37	3.3	6	0.000	1	0	1	1.06	30	13.7	48
13.7	26	72	9	129.2	20	4.7	24	0.625	37	4	31	1.13	32	10.2	22
16.1	38	80	6	106.0	8	4.5	22	0.000	1	11	47	0.77	27	10.3	23
14.8	31	68	19	120.4	15	3.9	9	0.147	14	0	1	0.27	6	9.6	15
14.4	29	72	9	105.7	7	6.3	41	0.573	33	0	1	0.37	10	8.5	2
6.0	1	96	2	99.9	3	3.3	6	0.492	26	13	48	0.41	12	9.3	10
8.3	3	61	40	100.0	4	5.2	31	0.541	29	13	49	1.74	44	10.6	26
18.5	45	67	25	197.6	49	6.6	43	0.377	20	3	23	0.38	11	10.6	26
15.8	34	62	35	119.7	14	5.8	37	0.960	44	4	32	0.52	16	10.8	30
14.2	28	63	31	146.3	36	4.3	17	0.332	19	2	12	0.53	17	11.8	42
15.9	35	88	3	152.6	38	2.6	2	0.000	1	0	1	0.35	9	8.5	2
12.8	23	64	28	131.9	22	4.4	19	0.476	24	3	25	1.74	44	10.3	23
16.1	38	63	31	130.4	21	6.0	38	0.549	31	2	14	0.72	24	10.9	32
11.9	17	68	19	133.8	23	7.1	47	0.544	30	2	17	0.33	8	9.9	19
10.5	11	63	31	134.0	24	3.1	4	0.646	38	7	42	1.47	40	11.0	34
9.0	6	63	31	83.6	1	4.9	29	1.302	45	8	45	1.56	41	8.2	1
15.2	32	59	44	161.4	43	5.1	30	0.081	12	4	35	1.07	31	14.2	49
17.3	40	87	5	113.0	11	2.7	3	0.000	1	0	1	0.21	3	9.9	19
18.1	43	62	35	170.4	46	4.5	22	0.794	41	2	16	2.70	48	11.4	37
15.9	35	62	35	113.3	12	7.4	49	0.825	43	2	11	2.03	47	9.8	18
11.1	14	68	19	138.7	25	5.5	32	1.450	48	6	40	0.58	19	9.6	15
9.2	7	101	1	155.3	41	4.0	13	0.000	1	0	1	0.41	12	8.5	2
10.0	9	62	35	189.3	48	3.9	9	0.551	32	3	28	0.75	26	11.5	39
12.0	19	71	11	145.5	34	6.9	45	0.680	39	6	41	1.35	38	10.7	28
22.3	48	68	19	139.7	26	2.3	1	0.110	13	3	26	2.95	49	10.7	28
11.6	16	69	15	126.1	18	4.1	14	0.593	34	7	43	0.65	21	9.1	7
12.0	19	55	46	105.4	6	4.4	19	0.000	1	0	1	0.97	28	12.2	45

*Informational subindex only. This data was not used to calculate the *Performance Index* grades.

Performance Data Sources

Subindex One: Employment

Employment Growth

Employment of workers on non-agricultural payrolls, 1985-1986. Percent change.
Source: Bureau of Labor Statistics, *Employment and Earnings,* May 1986 and May 1987.

Unemployment Rate

Percent unemployed, 1986.
Source: Bureau of Labor Statistics, *Employment and Earnings*, May 1987.

Unemployment Duration

Percent of unemployed that are unemployed more than 27 weeks. 1986 annual rates.
Source: U.S. Department of Commerce, *Geographic Profile of Employment and Unemployment*,
Bulletin 2266, September 1987.

Subindex Two: Earnings and Job Quality

Average Annual Pay

Average annual pay by location of establishment, 1986. Dollars.
Source: Bureau of Labor Statistics, September 1, 1987 release.

Average Annual Pay Growth

Change in average annual pay, 1985-1986.
Source: Bureau of Labor Statistics, September 1986 and September 1987 releases.

Health Coverage

Percent of non-elderly population covered by primary health plan, 1985.
Source: Employee Benefit Research Institute, *Uninsured in the United States*, March 1987.

Subindex Three: Equity

Poverty Rate

Percent of persons living in units with cash incomes below the poverty line, 1985.
Source: Christine Roth and Sheldon Danziger, *Poverty Rates by State, 1978-1985: Estimates from Annual Current Population Surveys* (Madison: University of Wisconsin, Institute for Research on Poverty, February 1987).

Black Income Relative to White Income

Median income (current dollars) of black households as a percent of white households.
Source: 1980 U.S. Census, Table 61: "Selected Social and Economic Characteristics by Race," in individual state volumes: *General Social and Economic Characteristics*.
Calculations by The Corporation for Enterprise Development.

Non-metropolitan/Metropolitan Unemployment

Ratio of non-metropolitan unemployment rate to metropolitan unemployment rate, 1986. *Source:* Bureau of Labor Statistics, Division of Local Area Statistics, unreleased data, 1986. Calculations by The Corporation for Enterprise Development.

Subindex Four: Environmental Health and Safety

Crime Rate

FBI Index of Serious Crime Rate per 100 residents, 1986. *Source:* Department of Justice, *Crime in the United States, 1986* (Washington, D.C.: Government Printing Office, 1987); reported in *State Policy Reports*, August 24, 1987.

Environmental Quality

- *Air Quality*
  Percent of state residents living in areas that exceed national ambient air quality standards for ozone and/or carbon monoxide, 1985-86. *Source:* Environmental Protection Agency, "State Implementation of Post-1987 Ozone and Carbon Monoxide Plan Revisions for Areas not Attaining the National Ambient Air Quality Standards," *Federal Register*, November 24, 1987. Calculations by The Corporation for Enterprise Development.

- *Superfund Dumpsites*
  Number of Superfund dumpsites per million population, 1986. *Source:* Environmental Protection Agency, "National Priorities List, Proposed Update #6," January 1987.

- *Hazardous Waste Generation*
  Metric tons of hazardous waste generated, billions per capita, 1986. *Source:* National Council on Public Works Improvement, "Hazardous Waste Management," prepared by Apogee Research, May 1987.

Infant Mortality

Infant deaths per 100,000 live births, 1985. *Source:* Children's Defense Fund, *The Health of America's Children: Maternal and Child Health Data Book* (Washington, D.C.: Children's Defense Fund, 1988).

All per capita population calculations were made by The Corporation for Enterprise Development. Source: 1986 population, Bureau of the Census, Press Release December 31, 1986.

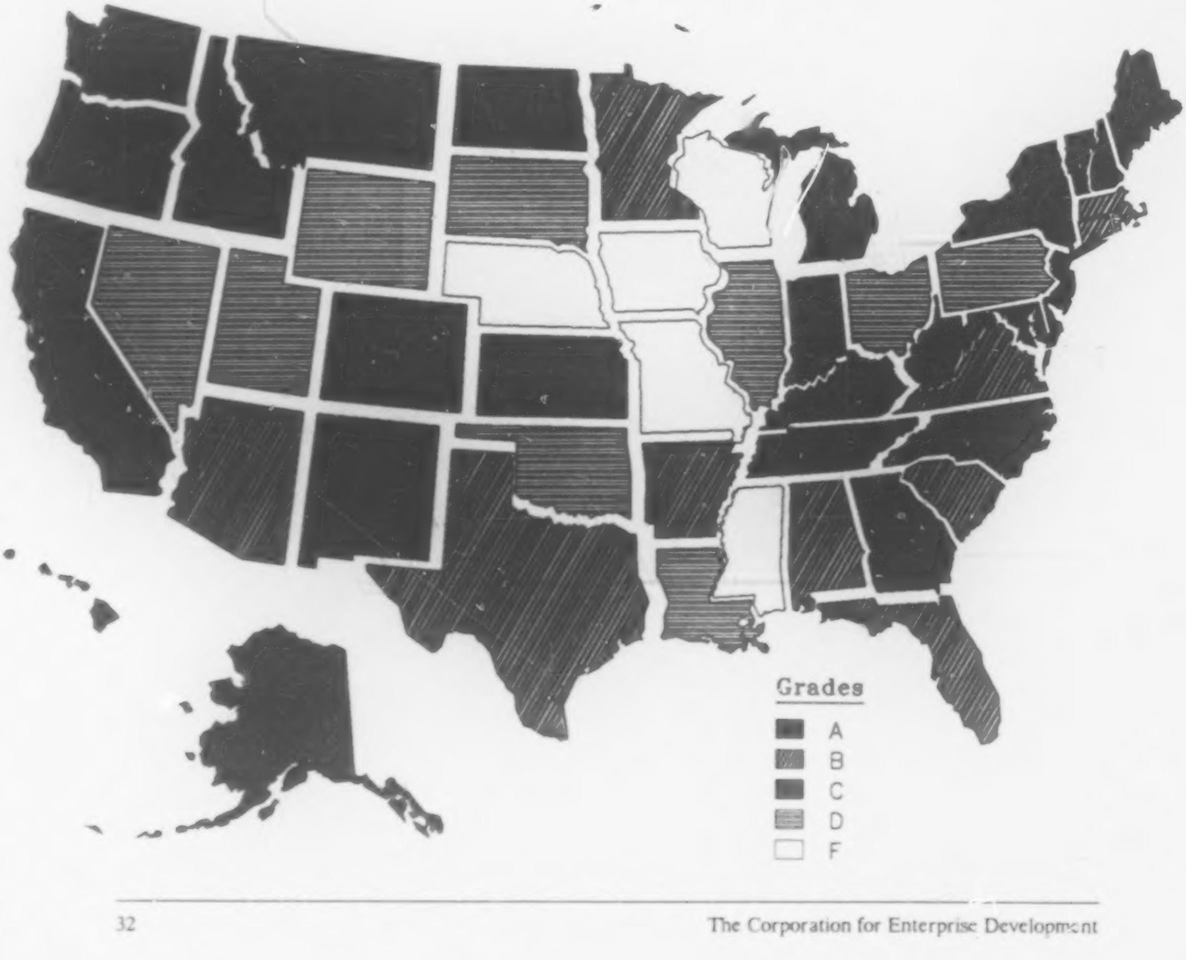
Endnotes

1. See Terry F. Buss, "Unemployment Rates and Their Implications for Human Resource Planning," *Journal of Economic and Social Measurement* 14 (1986).

2. Deborah Chollet, *Uninsured in the United States: The Non-elderly Population Without Health Insurance* (Washington, D.C.: Employee Benefits Research Institute, March 1987).

3. See, for example, Roger Schmenner, "Location Decisions of Large Firms: Implications for Public Policy," *Commentary*, January 1981; and Patricia L. Braden and Susan R. Rideout, "Location Decision-Making in Export-Oriented Business and Industry," unpublished paper, University of Michigan, 1978.

2 The Business Vitality Index


Grades
A
B
C
D
F

Business Vitality Report Card

	Business Competitiveness Subindex		Entrepreneurial Energy Subindex		Structural Diversity Subindex		FINAL* GRADE	
	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade
Alabama	7	A	33	C	19	B	13	B
Alaska	32	C	6	A	48	F	21	C
Arizona	26	C	2	A	49	F	12	B
Arkansas	21	C	27	C	6	A	19	B
California	26	C	7	A	24	C	10	A
Colorado	42	D	8	A	42	D	[illegible]	C
Connecticut	12	B	36	D	5	A	18	B
Delaware	1	A	19	B	18	B	4	A
Florida	39	D	3	A	26	C	20	B
Georgia	9	A	8	A	38	D	6	A
Hawaii	42	D	18	B	33	C	35	C
Idaho	35	C	20	B	13	B	26	C
Illinois	20	B	50	F	41	D	44	D
Indiana	12	B	30	C	39	D	23	C
Iowa	31	C	48	F	40	D	47	F
Kansas	46	F	23	C	1	A	33	C
Kentucky	30	C	27	C	23	C	30	C
Louisiana	40	D	25	C	46	F	42	D
Maine	4	A	16	B	3	A	3	A
Maryland	12	B	11	B	10	A	5	A
Massachusetts	6	A	36	D	15	B	14	B
Michigan	2	A	43	D	44	D	27	C
Minnesota	12	B	32	C	16	B	17	B
Mississippi	45	D	44	D	27	C	50	F
Missouri	44	D	40	D	28	C	48	F
Montana	38	D	13	B	11	B	22	C
Nebraska	37	D	44	D	21	C	46	F
Nevada	41	D	21	C	37	D	38	D
New Hampshire	5	A	1	A	35	C	2	A
New Jersey	11	B	24	C	7	A	7	A
New Mexico	29	C	8	A	2	A	8	A
New York	16	B	47	F	8	A	31	C
North Carolina	19	B	38	D	9	A	28	C
North Dakota	25	C	34	C	30	C	32	C
Ohio	18	B	46	F	43	D	41	D
Oklahoma	48	F	25	C	31	C	43	D
Oregon	46	F	16	B	25	C	34	C
Pennsylvania	17	B	41	D	47	F	37	D
Rhode Island	24	C	42	D	20	B	36	D
South Carolina	7	A	38	D	12	B	16	B
South Dakota	48	F	34	C	14	B	45	D
Tennessee	28	C	21	C	29	C	25	C
Texas	32	C	5	A	34	C	15	B
Utah	50	F	15	B	32	C	39	D
Vermont	3	A	4	A	4	A	1	A
Virginia	22	C	12	B	22	C	11	B
Washington	22	C	13	B	17	B	9	A
West Virginia	9	A	31	C	50	F	24	C
Wisconsin	34	C	49	F	36	D	49	F
Wyoming	35	C	27	C	45	D	40	D

*To determine this Index's final grade, the *Competitiveness* and *Entrepreneurial Energy* subindexes were each assigned a weight of three-sevenths, and *Structural Diversity* one-seventh. Please see *Appendix A* and the *Business Vitality Index* text for further explanation.

2

VITALITY

The standings of each state competitor in the economic race for the future depend, to a significant degree, on the vitality of the businesses in that state. Businesses create jobs. Businesses create income. And often, businesses spawn and attract other businesses. Their ability to create, produce and sell products and services that are valued in national and international markets — value that can be turned into jobs, wages and profits — determines much about the economic future of the states in which they are located.[1]

How can we tell if state economies have businesses that meet the test of vitality? As we begin to understand more clearly the dynamics of state economies, there is mounting evidence that vital businesses, and vital state economies, conform to four basic principles:

- *Long-term economic vitality depends on the ability of businesses to initiate, adapt to, and take advantage of rapid change.*

In an economy in which the majority of products and services are now traded globally, accelerating change is the only constant. Any business which takes its current success for granted, blames others for its decline, or simply digs in to "wait for the next cycle" to lift it up again, is on the road to failure. Any economy composed largely of such businesses is travelling the same downhill route, as states that once depended primarily on steel, oil or timber production know only too well.

Vigorous, vital businesses expect change, respond quickly to it, even initiate it. They create new products. They offer new services. They develop new, more efficient production processes. They seek and open new markets. In short, they innovate — constantly. These innovations seldom are of "breakthrough" proportions. More often they take the form of slight elaborations, new variations, small improvements — just enough to keep ahead of the competition.[2] And while new and small businesses tend to innovate more frequently and more aggressively than large, established companies, some large companies manage to build innovation into their "corporate culture" despite their size or age.[3]

- *The principal source of economic vitality in any state is local businesses and entrepreneurs, not businesses attracted from some other state or nation.*

More than 80 percent of the *net* employment growth in any state comes from new business start-ups and on-site expansions of existing businesses.[4] Moreover, entrepreneurs choose overwhelmingly to start businesses where they already live, rather than shop across state lines. What's more, new businesses, offering new products, are often the starting point for new industries. As they grow, they attract or precipitate the establishment of suppliers, spawn spinoff businesses, even attract competitors, often creating quite quickly a significant geographic concentration of related businesses.

What this means is that states already have within their borders the seeds of their own economic future. All they need to do is nourish them. Instead, however, many states conduct elaborate and expensive self-promotion and recruitment programs to attract out-of-state companies and branch plants. Only sporadically are these efforts successful, and this success is often short-lived. The footloose plants these states work so hard to attract are far more likely to move elsewhere — *40 times* more likely, according to one recent study[5] — than the plants of in-state businesses. Moreover, these footloose plants tend not to support the local economy, whereas locally-owned businesses tend to purchase from local suppliers and invest their profits locally.

All this is not to say that recruitment strategies do not have their place. The problem is that state economic development efforts too often focus on the tail and miss the dog. Attraction strategies need to complement indigenous development strategies — not substitute for them.

The final irony is that a strong indigenous business development strategy is often the most powerful business attraction strategy a state could mount. Many of the same factors important to the expansion of existing businesses — labor quality, proximity to markets, quality of life, quality of educational system — are at the top of the lists of those who make branch plant location decisions.[6]

- *Industrial diversity is crucial to long-term economic vitality.*

Diversification — in all traded sectors — is crucial to economic vitality because it reduces vulnerability to cyclical or unexpected downturns in dominant industries. Almost without exception, the states that did poorly on last year's *Report Card* were states whose fortunes were driven — up and, ultimately, down — by one or two dominant industries (oil in Louisiana and Texas, mining in New Mexico and West Virginia, agriculture in the Plains, and so forth). Such reliance can be a recipe for hardship, not just because of the dislocations caused when the crunch comes, but also because such states seldom have policies in place to deal with those dislocations.

Such dominant industries are typically central features of the state's traded sector — the sector that brings new wealth into the state. Service sector industry jobs are often seen as poor substitutes. But our economy has changed so dramatically in recent years that the old assumption — that service businesses export little and thus bring in no new wealth — is no longer accurate. Many growing service industries, including research and development, business services, transportation, finance and insurance, among others, *are* part of the traded sector and offer significant opportunities for business and wage growth.[7]

In the final analysis, states cannot afford to overlook any sector in the quest for economic diversity.

- *The vitality of businesses in a state largely depends upon the extent to which they invest in themselves — in the products and services they produce, in their employees, and in their physical plant.*

Competitiveness depends upon innovation, and innovation is both incremental and unpredictable. Ideas for new products and services come not from "businesses" but from *people*. Investments in the skills and capabilities of employees can be among the most important and direct routes to competitiveness open to businesses.[8] In the same vein, constant investment in upgrading physical plant and equipment can lead to advances in production efficiencies which themselves can provide, however briefly, a competitive edge.[9]

Using these four principles as a base, this Index gauges the vitality of businesses within each state by using three subindexes. The first looks at the competitiveness of existing businesses — how well they are doing and the extent to which they are investing in themselves. The second examines the level of entrepreneurial energy in the state. The third measures the structural diversity of the state's economy.

What's Different This Year

Experience with the Business Vitality Index led to major changes this year. In the Competitiveness of Existing Businesses subindex, we expanded *International Exports*, which had been based only on manufactured products, to address the strength of the entire traded sector of state economies. We refined last year's *Manufacturing Investment Per Production Worker* by adding used machinery and equipment, deleting buildings, and adjusting for the differences in the capital intensity of different state economies. We moved *High Growth Companies* to the Entrepreneurial Energy subindex, and dropped *Presence of Fortune 1000 Corporation Headquarters* because it said little about competitiveness.

In the Entrepreneurial Energy subindex, we dropped *Self-Employment Rate* because the 1980 Census data on which it was based are too old to be reliable and have yet to be updated. In addition, we combined the *Minority Business Ownership* and *Women's Business Ownership* measures to reduce distortion in the results. This combined measure differs from last year in other ways as well: it includes Hispanics for the first time, and focuses explicitly upon businesses with paid employees.

Finally, we developed an entirely new Structural Diversity subindex to address the vulnerability of state economies. The fact that this subindex has but one measure has led us to give it a weight of just 10 percent in determining the overall index grades.

Subindex One: Competitiveness of Existing Businesses

Attaining and sustaining economic success is a function of the competitiveness of the businesses in a state — that is, their ability, compared to their competitors, to marshal resources and develop new technologies to create and produce new goods and services for expanding world markets. To determine how businesses in each state are doing in the competitiveness race, we use three measures: traded sector strength, business failure rate, and investment in manufacturing machinery and equipment.

Traded Sector Strength

The engine of every state economy is its "traded sector" — the businesses which produce goods and services that are exported from the state and thus bring income into the state. Traded sector businesses also strengthen state economies even when they sell within the state, if their products or services displace imports from other states or nations. The strength of the traded sector can be measured by the sum total of its "value-added" — that is, the difference between the cost of the materials that go into a product and what it can sell for. Value-added measures the inflow and retention of wealth in a state economy.

Getting a handle on value-added, and thus on the strength of the traded sector, is no mean feat. In this measure, we take the principal indicator of value-added by each state's traded sector — *income* (wages, salaries, unincorporated profits, etc.) — and divide it by the number of people employed statewide to adjust for differences in the sizes of states. (See *Appendix C* for a fuller explanation of this measure.)

Business Failure

Perhaps the most basic indicator of the competitiveness of the businesses in a state is simply whether they survive. At least theoretically, one might expect more business failures in states with high degrees of entrepreneurship, but we find that states with a high degree of entrepreneurial energy often have relatively low rates of business failure. This suggests that high failure rates are an indication of economies in trouble. This measure does not include *all* business failures, just those which went into bankruptcy or receivership, or those that were otherwise involved in voluntary actions that resulted in actual losses to creditors.

Investment in Manufacturing Machinery and Equipment

We know that what creates competitiveness and, therefore, business vitality is quality and innovation. We also know that what drives innovation is investment — the investments businesses make in people, products and physical plant. Of these, the only investments that currently are being measured state-by-state are those in machinery and equipment.

This year, we begin by measuring per worker investments in machinery and equipment (both new and used machinery, but not buildings). Then, to adjust for variations in the capital intensity of the economies of different states, we divide by value-added per worker. The resulting measure is not an ideal proxy for capital intensity, but it is the best tool currently available.[10]

Subindex Two: Entrepreneurial Energy

As we noted earlier, the birth and growth of indigenous businesses is crucial to long-term business vitality in any state. The rate of new business formation in the United States is a source of wonder to other developed nations. In 1985, for example, some 700,000 new firms were formed, compared to only 90,000 in 1950. In addition, there were 400,000 new partnerships and 300,000 people newly self-employed.[11]

The rapid generation of new jobs (and the disappearance of old ones) is a central characteristic of our new economy. In fact, more than half of the new jobs that will exist in any state in 1993 will be created by businesses that do not even exist today — businesses that often will be started by people who are not now in business and who already live in the state.[12] In addition, new firms perform a vital function in changing state economies: they replenish the jobs lost when larger companies pare their workforces to become more competitive, or when companies that fail to take such action close altogether. Finally, in state after state, it has become clear that some new businesses (which ones is impossible to predict) can spawn entire industries, which tend to grow in close proximity to the "parent" firm.[13]

Most indigenous firms are small and we know that small firms are key to economic competitiveness. And while innovation can occur in larger firms, smaller firms are generally more efficient at product and process innovations, less footloose, and able to react more quickly to changing economic circumstances.

New and small businesses are not without their own shortcomings, however. They are more likely to fail than established firms, tend to pay lower wages, and offer fewer benefits. On the other hand, they often employ workers with no previous experience and limited skills, invest in training them and, thus, increase their future employability and mobility. And while these firms fail more frequently, during the last recession, you were more likely to lose your job through contraction or failure if employed in a firm with more than 100 employees, than in one with fewer than 100.[14]

To capture the entrepreneurial energy in a state, we look at two things: the birth and growth rates of new businesses and the level of entrepreneurship among minorities and women.

New Companies

Our measure for identifying new companies is business formations per 10,000 workers in the state. Specifically, we measure the number of companies created after 1983 that employed at least 10 people by January 1987. We are interested here in the growth new firms reach, not simply the number of them that exist at any one time in a state. We found last year that the fact that a state has a large proportion of small businesses and self-employed people may have a good deal less to do with entrepreneurial energy than with entrepreneurial necessity. In many thinly-populated rural states, such businesses are simply the only game in town. Nevertheless, they are resources that can be built upon and that may become significant employers in the future. For if necessity is the mother, invention may often be the result — if recognized and nurtured.

We note that a weakness of any business formation rate is that it includes existing firms that have simply changed owners. However, this problem is common to all states and introduces no bias for or against any state that we can identify.

High Growth Companies

We can get a pretty good picture of the level of vitality in a state economy by looking at the companies that are both young and rapidly-growing. The growth patterns of these young (founded since 1978) "high fliers" tells us something about their ability to meet emerging market needs and to initiate, adapt to and take advantage of change. In this measure, "high growth" refers both to the number of jobs created *and* to the percentage of that growth. Thus we do not include large companies that may have added what appear to be a lot of jobs but which represent, in fact, only a slight overall percentage growth. By the same token, we do not include very small firms that may show a very high percentage growth, but which represents only a few jobs.

Minority and Women Business Ownership

Economies in which entrepreneurship is not widely distributed among all segments of the population — to include nontraditional entrepreneurs such as women and minorities — are missing out on sources of new economic growth. Equity in state economic performance can never be fully achieved unless all segments of the population have the opportunity to enter the "pool of entrepreneurs." Moreover, by encouraging minority and women entrepreneurs, states reap other important benefits: such businesses are more likely to put down roots in distressed communities, more likely to hire minority and women employees, and more likely to provide role models for future entrepreneurs in their communities, than are other firms.[15]

As with new companies, we have taken care in this measure to distinguish between entrepreneurial energy and entrepreneurial necessity. Women and minority business ownership has risen sharply in recent years, but many of these firms have been created by individuals who, because of barriers to participation in the mainstream economy or simply insufficient resources, are self-employed as domestics, handymen, baby-sitters and the like. Even so, nationwide, minorities are less likely than non-minorities to own a business — 1.8 percent of the minority population owned businesses in 1982 compared to 6.4 percent in the population as a whole.[16]

In this measure we focus only on women and minority (black and Hispanic) -owned businesses (sole proprietorships, partnerships and Subchapter S corporations) with paid employees. In addition, we measure these firms in relation to population. Again we must emphasize that high self-employment rates — whatever the cause — are resources to be developed.[17]

Subindex Three: Structural Diversity

Diversity among traded-sector industries is essential to long-term business vitality, because it decreases vulnerability to sharp changes in the fortunes of any one industry. What is important is not that an economy *looks* diverse, with employment distributed across a variety of industries, but that it *acts* diverse — that is, when one industry is declining others are stable or growing.[18]

Structural Diversity

The measure we use in this subindex is the extent to which changes in employment in one traded industry parallel — or do not parallel — changes in other industries for each year between two similar points in recent economic history (1979 and 1986). (See *Appendix C* for a fuller explanation of this measure.)

Findings

If a state does well in the Performance Index, then we should expect it to do well on the Business Vitality Index as well. Similarly, a state that does poorly on one should also do poorly on the other. And to a large extent, that is what has happened. Of the ten states receiving *A*'s in the Vitality Index, six receive *A*'s in the Performance Index as well — Delaware, Maine, Maryland, New Hampshire, New Jersey and Vermont. Moreover, all but six of the states earning *D*'s or *F*'s in this Index score a *C* or worse in the Performance Index. For the states in the middle of the Vitality Index there is no strong pattern.

The overall standings in this Index show significant differences from last year. Part of this change is due to shifts in the economic situation in each of the states — energy states are down, for example, and states with pockets of rapid growth are up. But another cause of these changes is the Index itself. The Business Vitality Index is very different this year. It measures more aspects of the vitality of businesses in a state economy and it measures some of the same things as last year more sensitively. The overall effect seems to be a moderating of the extremes, as one might expect: the high fliers are not quite as high and the trailing states, in most instances, are not as far behind.

The states at the top tend to have economies that are both *developed* (diverse and competitive in national and international markets) and *vibrant* (full of new and growing businesses). In addition, all but six of the states earning *A*'s or *B*'s are east of the Mississippi. Most of the states at the bottom of the list tend to have economies deeply dependent on natural resource development and agriculture, including Iowa, Mississippi, Nebraska, Louisiana, Oklahoma, South Dakota and Wyoming. Several others are older industrial states still struggling to overcome the effects of structural changes, including Illinois, Ohio, Wisconsin and Pennsylvania.

Competitiveness of Existing Businesses Subindex Findings

The Competitiveness subindex illustrates dramatically what it takes to succeed in today's economy: the overall leaders in this subindex, with one or two exceptions, have well-developed economies with industries that today are producing complex goods with high value-added that compete on the basis of quality. At the other extreme of this subindex are states that, for the most part, produce commodities that compete on the basis of price. They have been, and continue to be, extremely vulnerable to shifts in commodity prices — oil and grains in particular.

This broad finding is particularly borne out in the *Traded Sector Strength* measure, which is dominated by states that are centers of industrial production and financial services: Connecticut, Michigan, Delaware, New Jersey, Ohio and so forth. Many of these states have undergone dramatic restructuring since the recession earlier in the decade and appear to be in better competitive shape today. In contrast, the states at the bottom of this measure tend to have extremely insular economies: for example, New Mexico, Montana and the Dakotas.

Given the high failure rate of new businesses in general, we might expect states with high levels of entrepreneurial energy to have high business failure rates. However, the *Business Failure* measure suggests the reverse: that the "hotter" the economy, the lower the failure rate. Thus, business failure rates follow a more conventional logic: the more troubled the economy, the higher the failure rate. And in 1986, the year from which this data was taken, the states with the worst failure rates were predominantly energy-producing states: Colorado, Oklahoma, Texas, Louisiana, Wyoming and Alaska.

The *Investment in Machinery and Equipment* measure, adjusted to account for differences in the capital intensity of state economies, aims to measure the extent to which businesses in states are investing in themselves. But the results are difficult to read. The leaders in this measure tend to be thinly populated states in which significant capital projects have been undertaken in one or two major industries. Over half of the capital investment in Vermont, for example, was in electronics, an industry which represents only 20 percent of manufacturing employment in the state. The standing of the other leaders can be explained the same way: in Louisiana, by big investments in chemicals and petroleum; in New Mexico, electrical equipment; in Wyoming, chemicals, and so forth. The second tier, however, appears to more accurately reflect the states in which significant capital equipment upgrading has been underway, including Michigan and South Carolina. Patterns of disinvestment are visible at the bottom of the list: Connecticut is converting from an industrial state to a financial and information services and corporate headquarters state; and Rhode Island, despite its economic health, continues to be a low investment state.

Entrepreneurial Energy Subindex Findings

This subindex tells an interesting story about the recent history of economic growth in America. Virtually all of the leaders in this subindex are the "newly developed" states, the Japans and Koreas of the United States. They are moving from an economy based on commodities and low-wage industries to a more diverse and higher value-added economy. They are growing in size and are not bound by the old ways of doing things. These states include Arizona, New Hampshire, Florida and Vermont.

At the bottom of this subindex are two kinds of states: those states that have suffered from a legacy of chronic poverty and underinvestment (Mississippi, Alabama), and those that have economies that have depended on old, previously successful but now declining, sectors (Michigan, Pennsylvania and Iowa).

The states with the fastest growing businesses are those with a recognizable high-tech, high value-added base. Some of the states have been developed for a while (Massachusetts and New Jersey), and some are newly developed (North Carolina and Arizona).

The states with the highest rates of new company formation have had significant recent population and economic growth — even if some of them have had their wings clipped a bit recently. These include Florida, Texas, Colorado and New Hampshire.

And finally, the states with the highest rates of non-traditional entrepreneurship tend to be thinly populated states where entrepreneurship is a practical necessity. Women and minorities perceive opportunities to found their own businesses and encounter few constraints in doing so in these states. Also, states with high Hispanic concentrations tended to do well on this measure. Following right behind the thinly-populated states in this measure are the newly-developed states whose economies are changing rapidly and present high levels of opportunity to all comers. At the bottom are older industrial and Southern states where the roles of minorities and women are still set by tradition.

Structural Diversity Subindex Findings

A diverse economy is one in which the "valleys" in one sector are offset by the "peaks" in another. The effect of this offsetting behavior is stability and resilience.

At least in theory. The problem is that documenting the diversity of state economies — that is, not how diverse they look, but how they behave — is difficult in the extreme. The results illustrate the difficulty. The states which occupy the bottom 15 or so positions tend to be of two types. The first — states like Pennsylvania, West Virginia, Louisiana, Michigan, Ohio, Indiana and Illinois — have economies heavily dependent on the fortunes of a few sectors — heavy manufacturing, mining or oil, for example. When these sectors go up or down, the entire state economy follows. The second group includes states which have experienced broad-based growth during the years since 1979, including Arizona, Georgia and New Hampshire. Because all sectors rose together, these states *appear* not to be diverse, when in fact they may well be. Our measure simply doesn't distinguish the difference.

At the other end of this list are states which have sectors that *do* offset each other. New York is a good example: when its heavy manufacturing industries lagged, the slack was taken up by a booming financial and business services sector. Also at the top, however, are states we do not think of as economic success stories yet, such as New Mexico, Kansas or Arkansas, but which nevertheless score well because their economic sectors — however weak — do tend to offset each other.

Business Vitality Data

	COMPETITIVENESS OF EXISTING BUSINESSES						ENTREPRENEURIAL ENERGY						STRUCT'L. DIVERSITY	
	Traded Strength per worker		Business Fail. per 10,000 cos.		Mfg. Capital Investment		New Companies per 10,000 cos.		High Growth Companies		Min. & Wom. Bus. Ownshp.			
	$	Rank	#	Rank	%	Rank	#	Rank	%	Rank	%	Rank	Score	Rank
Alabama	**7,508.1**	**22**	**58.5**	**15**	**9**	**10**	**11.79**	**25**	**2.31**	**30**	**0.52**	**34**	**0.632**	**19**
Alaska	7,858.1	18	194.0	44	7	23	16.78	3	1.92	37	1.03	4	24.748	48
Arizona	**5,985.2**	**45**	**89.7**	**25**	**10**	**7**	**21.67**	**1**	**3.57**	**3**	**0.63**	**24**	**29.533**	**49**
Arkansas	6,877.6	35	76.4	20	9	10	10.60	30	1.82	40	0.72	14	–2.079	6
California	**8,290.4**	**12**	**172.7**	**42**	**7**	**23**	**13.23**	**13**	**3.14**	**8**	**0.62**	**25**	**1.510**	**24**
Colorado	7,109.2	30	366.5	50	7	23	15.11	5	2.27	32	0.77	12	11.057	42
Connecticut	**11,321.7**	**1**	**25.4**	**5**	**5**	**46**	**8.78**	**46**	**3.18**	**7**	**0.49**	**40**	**–2.752**	**5**
Delaware	9,954.2	3	37.4	7	10	7	10.88	29	3.54	5	0.51	35	0.620	18
Florida	**4,895.5**	**49**	**128.7**	**32**	**9**	**10**	**18.57**	**2**	**2.73**	**16**	**0.78**	**11**	**1.603**	**26**
Georgia	7,605.1	21	53.4	10	8	17	14.09	9	3.02	9	0.56	31	8.696	38
Hawaii	**5,821.4**	**47**	**129.9**	**33**	**7**	**23**	**12.19**	**21**	**2.88**	**11**	**0.51**	**35**	**2.747**	**33**
Idaho	6,149.9	44	130.5	34	9	10	12.15	22	1.56	43	0.89	9	–0.464	13
Illinois	**8,777.0**	**7**	**127.6**	**31**	**7**	**23**	**8.18**	**49**	**2.42**	**26**	**0.43**	**49**	**9.173**	**41**
Indiana	9,001.7	6	106.9	29	8	17	10.11	36	2.42	26	0.64	23	8.969	39
Iowa	**7,829.9**	**19**	**93.7**	**26**	**6**	**38**	**7.56**	**50**	**1.38**	**45**	**0.72**	**14**	**9.135**	**40**
Kansas	8,108.4	15	255.5	48	5	46	12.07	23	2.08	36	0.70	18	–5.463	1
Kentucky	**7,420.5**	**24**	**135.9**	**35**	**7**	**23**	**12.44**	**18**	**1.86**	**38**	**0.60**	**28**	**1.440**	**23**
Louisiana	6,222.0	43	213.1	46	13	3	11.83	24	1.86	38	0.68	21	16.546	46
Maine	**6,922.4**	**32**	**24.2**	**4**	**11**	**5**	**10.59**	**32**	**2.43**	**25**	**1.02**	**5**	**–4.094**	**3**
Maryland	7,065.0	31	54.3	11	9	10	14.32	8	3.66	2	0.48	42	–0.603	10
Massachusetts	**8,734.9**	**8**	**57.0**	**14**	**7**	**23**	**9.38**	**42**	**3.76**	**1**	**0.38**	**50**	**0.144**	**15**
Michigan	11,101.2	2	88.4	24	10	7	9.79	39	2.60	22	0.49	40	14.878	44
Minnesota	**8,164.2**	**13**	**60.0**	**16**	**7**	**23**	**9.90**	**38**	**2.56**	**23**	**0.61**	**26**	**0.399**	**16**
Mississippi	6,438.2	40	117.0	30	6	38	10.58	33	1.56	43	0.61	26	1.679	27
Missouri	**7,110.5**	**29**	**143.7**	**37**	**6**	**38**	**10.29**	**35**	**2.28**	**31**	**0.59**	**29**	**1.682**	**28**
Montana	4,896.9	48	71.6	19	7	23	14.08	10	1.16	48	1.66	1	–0.592	11
Nebraska	**7,696.7**	**20**	**84.8**	**23**	**5**	**46**	**8.25**	**48**	**1.73**	**41**	**0.76**	**13**	**1.168**	**21**
Nevada	6,853.9	36	176.9	43	8	17	12.81	15	2.32	29	0.54	32	7.039	37
New Hampshire	**8,006.0**	**16**	**23.3**	**3**	**7**	**23**	**14.60**	**6**	**3.56**	**4**	**0.88**	**10**	**4.299**	**35**
New Jersey	9,937.8	4	51.2	9	6	38	10.60	30	3.01	10	0.48	42	–2.036	7
New Mexico	**4,668.9**	**50**	**96.0**	**27**	**12**	**4**	**14.48**	**7**	**2.14**	**34**	**0.95**	**8**	**–5.148**	**2**
New York	8,722.8	9	36.8	6	6	38	9.39	41	2.72	17	0.44	48	–1.634	8
North Carolina	**7,495.8**	**23**	**54.8**	**12**	**7**	**23**	**10.01**	**37**	**2.88**	**11**	**0.46**	**46**	**–0.632**	**9**
North Dakota	5,915.2	46	55.9	13	8	17	10.50	34	1.08	49	0.96	7	1.929	30
Ohio	**9,250.4**	**5**	**99.7**	**28**	**7**	**23**	**8.80**	**45**	**2.68**	**18**	**0.48**	**42**	**13.426**	**43**
Oklahoma	6,534.0	38	366.0	49	7	23	12.40	19	1.31	46	0.70	18	2.438	31
Oregon	**6,905.5**	**33**	**147.0**	**38**	**6**	**38**	**12.92**	**14**	**2.14**	**34**	**0.72**	**14**	**1.575**	**25**
Pennsylvania	8,141.8	14	64.9	17	7	23	8.42	47	2.74	15	0.51	35	17.896	47
Rhode Island	**7,406.4**	**25**	**16.6**	**1**	**5**	**46**	**9.01**	**44**	**2.84**	**13**	**0.48**	**42**	**0.788**	**20**
South Carolina	6,880.5	34	49.0	8	11	5	12.24	20	2.41	28	0.46	46	–0.545	12
South Dakota	**6,312.7**	**42**	**79.1**	**22**	**5**	**46**	**9.65**	**40**	**1.26**	**47**	**1.08**	**3**	**–0.021**	**14**
Tennessee	7,362.9	26	140.0	36	8	17	11.39	26	2.68	18	0.54	32	1.775	29
Texas	**7,133.7**	**28**	**213.8**	**47**	**9**	**10**	**15.74**	**4**	**2.75**	**14**	**0.68**	**21**	**4.281**	**34**
Utah	6,449.4	39	169.7	41	6	38	13.40	12	2.68	18	0.57	30	2.511	32
Vermont	**6,687.4**	**37**	**22.6**	**2**	**17**	**1**	**12.69**	**16**	**2.68**	**18**	**1.21**	**2**	**–3.135**	**4**
Virginia	7,321.6	27	68.8	18	7	23	13.65	11	3.24	6	0.50	39	1.340	22
Washington	**8,356.2**	**11**	**166.8**	**40**	**8**	**17**	**12.67**	**17**	**2.44**	**24**	**0.70**	**18**	**0.587**	**17**
West Virginia	7,883.2	17	77.0	21	9	10	11.33	27	1.72	42	0.71	17	33.429	50
Wisconsin	**8,691.8**	**10**	**148.4**	**39**	**6**	**38**	**9.14**	**43**	**2.22**	**33**	**0.51**	**35**	**5.289**	**36**
Wyoming	6,424.0	41	200.1	45	14	2	10.97	28	1.00	50	1.01	6	15.878	45

Please refer to *Business Vitality Index Data Sources* and the *Business Vitality Index* text for further detail on individual measures.

Business Vitality Data Sources

Subindex One: Competitiveness of Existing Businesses

Traded Sector Strength

Traded sector personal income per worker, 1986.
Source: U. S. Department of Commerce, Bureau of Economic Analysis, State Personal Income Summary Tables, 1986. U.S. Bureau of Labor, Bureau of Labor Statistics, *Geographic Profile of Employment and Unemployment, 1986* (Washington, D.C.: Government Printing Office, 1987). Calculations by Mt. Auburn Associates.
See Appendix C for more information on *Traded Sector* measure.

Business Failure

Business failures per 10,000 concerns, 1986.
Source: Dun and Bradstreet, *Business Failure Record*, 1987.
"Failures" are businesses involved in bankruptcy or receivership proceedings, or voluntary actions involving losses to creditors.

Investment in Manufacturing Machinery and Equipment

Investment in new and used manufacturing machinery and equipment as a percentage of manufacturing value added, 1985.
Source: U.S. Department of Commerce, Bureau of the Census, *1985 Annual Survey of Manufacturers: Geographic Area Statistics* (Washington, D.C.: Government Printing Office, 1986).

Subindex Two: Entrepreneurial Energy

New Companies

All companies founded in 1983 or later with at least ten employees by January 1987, per 10,000 employers.
Source: "Number of New Companies," *Inc.*, October 1987. Measure developed by Cognetics in Cambridge, Massachusetts. Number of workers from U. S. Small Business Administration, *Small Business Database.*

High Growth Companies

Percent of companies in the state founded after 1978 with a growth index of 20 or more for the period January 1983 to January 1987.
Source: Inc., October 1987. Measure developed by Cognetics in Cambridge, Massachusetts.
The growth index is determined by multiplying the percent of job growth (in decimal terms) by the actual increase in the number of jobs. For example, a company which grew from 40 to 70 jobs would have an index of 22.5 — 75 x 30.

Minority and Women Business Ownership

Composite index of women-owned and minority-owned (black and Hispanic) businesses with paid employees as a percent of all women and minorities in the labor force, 1982.
Source: U.S. Department of Commerce, Bureau of the Census, *1982 Economic Censuses: Women-Owned Businesses* and *1982 Survey of Minority-Owned Business Enterprises* (Washington, DC: Government Printing Office, 1986). Calculations by The Corporation for Enterprise Development.

Subindex Three: Structural Diversity

Structural Diversity

Sum of covariances of employment change for all pairs of traded sector industries, 1986.
Source: U.S. Department of Commerce, Bureau of Economic Analysis, unpublished state employment tables, 1987.
Measure derived from formula which measures the diversity of percentage change in employment in state traded industries, 1979-86. Industry data at the 2-digit SIC level. Calculations by Mt. Auburn Associates.
See Appendix C for more information on *Structural Diversity* measure.

All per capita population calculations were made by The Corporation for Enterprise Development. Source: 1986 population, Bureau of the Census, Press Release December 31, 1986.

Endnotes

1. A good explanation of "business vitality" can be adapted from the definition of "national competitiveness" offered by the Strategy Group of the President's Commission on Industrial Competitiveness as "the extent to which state businesses can produce goods and services that meet the test of national and international markets while simultaneously maintaining and expanding the real incomes of its citizens." See President's Commission on Industrial Competitiveness, *The New Reality, Vol. II* (Washington, D.C.: Government Printing Office, January 1985).

2. See, for a discussion of the importance of innovation, Stephen S. Cohen and John Zysman, *Manufacturing Matters: The Myth of the Post-Industrial Economy* (New York: Basic Books, 1987); and Jane Jacobs, *Cities and the Wealth of Nations* (New York: Random House, 1984), among others.

3. See, for examples of the variety of innovating businesses, Thomas Peters and Robert Waterman, *In Search of Excellence: Lessons from America's Best-Run Companies* (New York: Harper and Row, 1982).

4. See, for example, Catherine Armington, *Further Examination of Recent Employment Growth Analysis of USEEM Data for 1976-1980*, (Washington, D.C.: The Brookings Institution, March 1983); The Rhode Island Strategic Development Commission, *The Greenhouse Compact*, (Providence: The Rhode Island Strategic Development Commission, 1984); and Karl Seidman, *The Role of Taxation in State Business Climate* (Washington, D.C.: The Corporation for Enterprise Development, 1987).

5. Andrew Reamer, "The Dynamics of Manufacturing Job Loss: A Case Study of Rhode Island, 1978-83," unpublished dissertation, Massachusetts Institute of Technology, 1986.

6. See especially Roger W. Schmenner, *Making Business Location Decisions* (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1982).

7. See, for example, Thomas M. Stanback, Jr., Peter J. Bearse, Thierry J. Noyelle and Robert A. Karasek, *Services: The New Economy* (Totowa, NJ: Allanheld, Osmun & Co., Inc., 1981); and William B. Beyers, Michael Alvine and Erik G. Johnsen, "The Service Economy: Export of Services in the Central Puget Sound Region," Report for the Central Puget Sound Economic Development District, Seattle, WA, April 1985.

8. See, for example, Peter Drucker, *Innovation and Entrepreneurship* (New York: Harper and Row, 1985).

9. For an example of a discussion of the importance of investments in maintaining economic competitiveness, see Ira C. Magaziner and Robert B. Reich, *Minding America's Business: The Decline and Rise of the American Economy* (New York: Harcourt Brace Jovanovich, 1982).

10. The ideal way to correct for bias towards states dominated by capital-intensive industries is to divide machinery and equipment investment by the current market value of existing machinery and equipment, which would yield the percentage of a state's equipment stock being replaced or upgraded in a given year. Unfortunately, estimates of such current market values do not exist. The second best means we could devise for correcting capital-intensity bias in the manufacturing investment measure was to divide by "value-added per worker." "Value-added per worker" is very much a function of the capital intensity of a state's industry mix, so the capital-intensity biases of *both* the investment *and* the value-added measures tend to cancel each other out. The weakness of using value-added is that it also is a function of other factors, i.e., the productivity of the workforce and the level of machinery and equipment investment in prior years. This kind of "noise" in the measure can occur if the labor productivity and capital intensity of a state's industry is significantly different from the nationwide average for that industry.

11. David Birch, "The Atomization of America," *Inc.*, March 1987.

12. See David Birch, "The Job Generation Process," MIT Program on Neighborhood and Regional Change, 1979.

13. See for a discussion of the "agglomeration" of businesses, Jane Jacobs, *op.cit.*; Harry Richardson, *Regional Economies: Location Theory, Urban Structure and Regional Change* (New York: Praeger, 1969); and D.E. Keeble, "Models of Economic Development," in R.J. Chorley and P. Haggett, *Models in Geography* (London: Methuen, 1967).

14. Candee S. Harris, "The Magnitude of the Job Loss from Plant Closings and the Generation of Replacement Jobs: Some Recent Evidence," *The Annals of American Academy of Political and Social Science*, September 1984. See also Robert Meyer, "Structural Change and Job Dislocation," unpublished paper, The Brookings Institution, April 1984. While younger and smaller businesses are more likely to fail and close than older, larger firms, these loss rates are often overstated and are, in any case, overshadowed by firm birth and expansion rates. Less than one percent of all businesses fail each year with a loss to creditors. Of these, 80 percent have survived their first two years, with the big failure rates occurring in years three, four and five — by the end of which period 61 percent of the failures will have occurred. A larger percentage of businesses — eight to nine percent — close each year for a variety of other reasons, many having little to do with the intrinsic value of the business, and these too tend to be younger and smaller, though not exclusively so. Kibre Dawit and Robert Friedman, "Myths of Small Business Failure," *The Entrepreneurial Economy*, July 1982.

15. See, for example, Eugene P. Foley, "The Negro Businesswoman: In Search of a Tradition," *Daedalus*, Winter 1966; Federico V. Magdalena, "The Filipino Entrepreneurs of Hawaii: An Inquiry into their Roots and Success," unpublished doctoral dissertation, University of Hawaii, 1977; Bernard Saracheck, "Jewish American Entrepreneurs," *Journal of Economic History*, June 1980; David Caplovitz, *The Merchants of Harlem* (Beverly Hills, CA: Sage Publications, 1973); and Janice K. Demarest, "Women Minding Their Own Business: A Pilot Study of Independent Business and Professional Women and Their Enterprises," unpublished doctoral dissertation, University of Colorado, 1977. A survey of inner city businesses in Buffalo revealed that nearly 100 percent of full-time employees in black-owned firms were blacks, while only 21.5 percent of the employees of white-owned businesses were

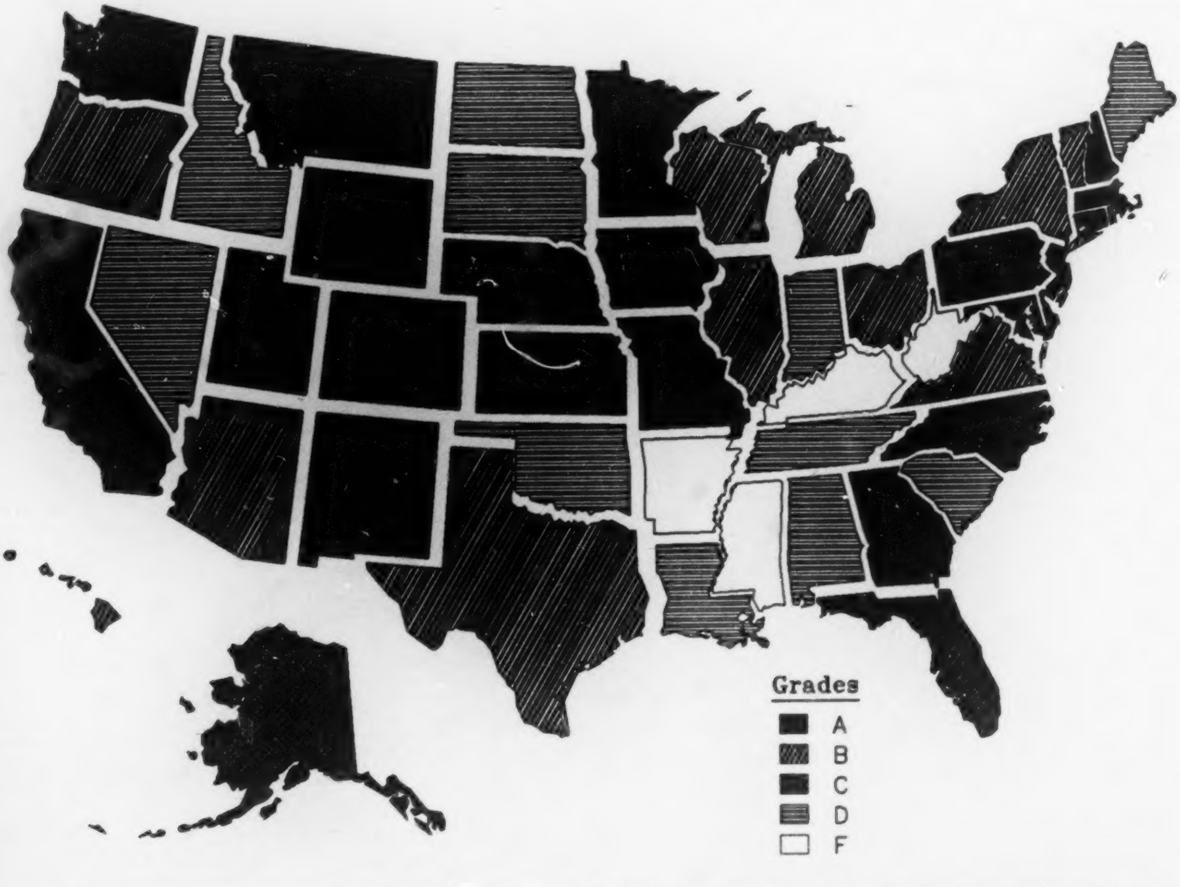
black. For a review of minorities and enterprise development, see The Corporation for Enterprise Development's *The Entrepreneurial Economy*, April 1984.

16. U.S. Small Business Administration, *The State of Small Business: 1987* (Washington, D.C.: Government Printing Office, 1987).

17. For each of the three groups of non-traditional entrepreneurs — women, blacks and Hispanics — we calculate the percentage of each group which operates businesses with paid employees. We then construct a single index of non-traditional entrepreneurship by combining the percentages for the three groups, with women accorded half the weight and black and hispanics receiving one quarter each. We chose this weighting scheme to roughly take into account differences in the size of the population groups.

18. H.L. Brewer, "Regional Economic Stabilization: An Efficient Diversification Approach," *Review of Regional Studies*, 1987.

3 The Capacity Index


Grades
A
B
C
D
F

Capacity Report Card

	Human Resources Subindex		Technological Resources Subindex		Financial Resources Subindex		Infra./Amen. Capacities Subindex		FINAL GRADE	
	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade
Alabama	**44**	**D**	**33**	**C**	**41**	**D**	**44**	**D**	**45**	**D**
Alaska	11	B	32	C	35	C	42	D	33	C
Arizona	**35**	**C**	**16**	**B**	**13**	**B**	**15**	**B**	**17**	**B**
Arkansas	42	D	50	F	45	D	40	D	48	F
California	**29**	**C**	**7**	**A**	**3**	**A**	**6**	**A**	**7**	**A**
Colorado	6	A	2	A	26	C	2	A	2	A
Connecticut	**8**	**A**	**6**	**A**	**6**	**A**	**21**	**C**	**4**	**A**
Delaware	26	C	9	A	11	B	1	A	8	A
Florida	**45**	**D**	**39**	**D**	**20**	**B**	**12**	**B**	**30**	**C**
Georgia	39	D	41	D	19	B	11	B	28	C
Hawaii	**25**	**C**	**25**	**C**	**21**	**C**	**5**	**A**	**15**	**B**
Idaho	10	A	30	C	45	D	47	F	38	D
Illinois	**36**	**D**	**22**	**C**	**5**	**A**	**22**	**C**	**20**	**B**
Indiana	30	C	28	C	32	C	44	D	41	D
Iowa	**18**	**B**	**19**	**B**	**39**	**D**	**46**	**F**	**35**	**C**
Kansas	12	B	36	D	33	C	39	D	33	C
Kentucky	**47**	**F**	**49**	**F**	**30**	**C**	**48**	**F**	**47**	**F**
Louisiana	49	F	42	D	28	C	43	D	45	D
Maine	**22**	**C**	**47**	**F**	**44**	**D**	**31**	**C**	**43**	**D**
Maryland	12	B	3	A	23	C	4	A	6	A
Massachusetts	**9**	**A**	**1**	**A**	**2**	**A**	**28**	**C**	**3**	**A**
Michigan	28	C	17	B	14	B	26	C	20	B
Minnesota	**3**	**A**	**12**	**B**	**9**	**A**	**3**	**A**	**1**	**A**
Mississippi	49	F	46	F	49	F	50	F	50	F
Missouri	**33**	**C**	**24**	**C**	**22**	**C**	**38**	**D**	**31**	**C**
Montana	1	A	44	D	36	D	36	D	31	C
Nebraska	**4**	**A**	**34**	**C**	**40**	**D**	**18**	**B**	**25**	**C**
Nevada	33	C	29	C	48	F	23	C	40	D
New Hampshire	**15**	**B**	**20**	**B**	**33**	**C**	**23**	**C**	**22**	**C**
New Jersey	19	B	14	B	8	A	7	A	9	A
New Mexico	**30**	**C**	**5**	**A**	**42**	**D**	**29**	**C**	**26**	**C**
New York	37	D	8	A	1	A	29	C	14	B
North Carolina	**40**	**D**	**35**	**C**	**17**	**B**	**17**	**B**	**27**	**C**
North Dakota	19	B	38	D	43	D	32	C	38	D
Ohio	**24**	**C**	**14**	**B**	**18**	**B**	**23**	**C**	**17**	**B**
Oklahoma	27	C	31	C	30	C	41	D	37	D
Oregon	**16**	**B**	**26**	**C**	**12**	**B**	**20**	**B**	**13**	**B**
Pennsylvania	32	C	12	B	7	A	9	A	10	A
Rhode Island	**38**	**D**	**10**	**A**	**10**	**A**	**37**	**D**	**24**	**C**
South Carolina	45	D	43	D	37	D	16	B	42	D
South Dakota	**19**	**B**	**48**	**F**	**25**	**C**	**34**	**C**	**36**	**D**
Tennessee	48	F	40	D	23	C	35	C	44	D
Texas	**43**	**D**	**23**	**C**	**4**	**A**	**10**	**A**	**19**	**B**
Utah	17	B	4	A	37	D	33	C	22	C
Vermont	**2**	**A**	**26**	**C**	**27**	**C**	**18**	**B**	**12**	**B**
Virginia	22	C	20	B	15	B	13	B	11	B
Washington	**7**	**A**	**10**	**A**	**16**	**B**	**8**	**A**	**4**	**A**
West Virginia	41	D	45	D	50	F	49	F	49	F
Wisconsin	**5**	**A**	**18**	**B**	**29**	**C**	**26**	**C**	**16**	**B**
Wyoming	12	B	37	D	47	F	14	B	28	C

3

CAPACITY

In the race for the economic future, some of the competitors have a distinct advantage: they are simply in better condition. Investments have been made to ensure that they were well prepared at the start and that they are well nourished throughout.

There are four kinds of economic conditioning or capacity-building investments in which states and their political subdivisions are principally involved: building an educated and skilled workforce, supporting technological innovation, assuring available financial resources, and creating and maintaining physical infrastructure and amenity resources. These are the building blocks of state economies. How well-developed they are, and how they are used, will have a lot to do with future economic performance and how attractive the state is for new economic development.

In the last decade, various crises — in infrastructure, environment, public education, adult literacy, technology development and commercialization, among others — have precipitated significant increases in investments in these building blocks in many states. But despite this progress, many of our international competitors are still in better condition. Compared to other advanced industrial economies, for example, our labor force has lower literacy rates, poorer math and science skills and higher school dropout rates. Moreover, we invest less in civilian research and development.[1]

In this Capacity Index, we have developed four subindexes that correspond to each of the building blocks. These subindexes do not predict the future, but they do define the boundaries of the possible — the *capacity* for a state's economic success — under current conditions.

What's Different This Year

This year's Capacity Index reflects a number of revisions. At the subindex level, we combined last year's Infrastructure and Amenities subindexes to reflect how closely related they are, and we eliminated last year's Entrepreneurial Culture subindex in favor of the entrepreneurship measures in the Vitality Index.

At the individual measure level, there have also been several changes. In the Human Resources subindex, we added a basic *Adult Illiteracy* measure, and we moved several measures having to do with state commitment to education to the Policy Index where they are more appropriate.

We gathered technology-related measures from last year under a subindex of their own to reflect their increasing importance in economic development in general, and global competitiveness in particular.

We made two revisions in the Financial Resources subindex. First, we narrowed the banking data to include only banks headquartered in the U.S. and only the loans they make to U.S. addresses, in an effort to focus more clearly on financial resources more directly related to state economic performance. There are still difficulties with this measure — we don't know precisely who has received loans, for example — but it is an improvement. Second, the venture capital measure this year addresses actual investments in the state, not simply whether venture capital organizations are located there.

In the Infrastructure and Amenities subindex, the *Highway Condition* measure is more comprehensive than last year. We added a measure of *Bridge Condition*, and dropped last year's *Airport Capacity* measure because so many airports serve regional markets that the measure was misleading. Among the Amenity measures, we added *Housing Cost*, a crucial measure of liveability, and *Tourism Spending*, a measure of the attractiveness of a state to others. Finally, we moved *State Arts Agency Appropriations* to the Policy Index.

Subindex One: Human Resource Capacity

Economic development is a profoundly human process. While each of the subindexes in this chapter is important to state economies, it takes people — skilled, educated, adaptable, innovative people — to take these building blocks and create the structure of an economy. The more skilled the people, the stronger and more lasting the structure of the economy they build.[2]

The skills of a state's workforce, and the extent to which those skills are adaptable to changing economic circumstances, are the most basic components of its human resource base. The kind of diversified economic activity that will generate expanding opportunity and better-paying jobs demands an increasingly broad range of skills: language skills more comprehensive than just basic reading; computational skills more advanced than just arithmetic; reasoning skills, management and entrepreneurial skills, and personal and interpersonal skills of the sort needed in group production situations. The demand for these skills is accelerating. A recent forecast commissioned by the Labor Department predicts that more than half of all new jobs generated between now and the year 2000 will require some education beyond high school.[3] The more the workforce possesses these skills and management makes use of them, the more competitive state economies will be.[4]

While we would like to be able to measure actual skill levels within and across industries in state economies, no such information exists. Instead, this subindex measures high school graduation rates, adult illiteracy rates and college educational attainment rates.

High School Graduation

In an economy in which the most basic qualification for most of the new jobs being created is high school completion, a state's economic competitiveness will be affected directly by its ability to produce new entrants to the workforce that meet this basic test of work-readiness. Despite differences from state to state in the level of competence associated with a high school education, and the national controversy over the inadequacy of the skills possessed by those who do graduate, this measure is still the best baseline we have from which to gauge the skill level of tomorrow's workforce.

Adult Illiteracy

We also need to understand the skill level of today's workforce if we are to assess the capacity of a state's economy to compete. Since nearly three-quarters of the workforce for the year 2000 is already out of school, competitiveness is directly related to the literacy levels of adults now in the workforce. Unfortunately, literacy requirements in today's workplace run well ahead of the data we have on adult literacy. Although we know that a wide range of skills is needed to secure work in today's economy, the only comprehensive literacy data available for this measure is the U.S. Department of Education's English Language Proficiency Survey. It addresses only reading ability and, at that, only whether adults read at the fourth grade level.

College Education Attainment

In an economy in which knowledge is itself a traded commodity, the higher the educational attainment of the population, the greater the capacity of the state's economy to compete. This measure identifies the percentage of the population aged 25 or older with at least a college education.

Subindex Two: Technological Resource Capacity

Technological innovation produces the seeds from which businesses and economies grow. This is true not just of "high tech" businesses but, increasingly, of *all* businesses — from steel to finance, auto parts to textiles. The rapid acceleration of technological innovation has reshaped dramatically the economic landscapes of states: the computer industry rises from the ruins of Massachusetts' industrial past; robotics and machine vision revitalize heavy manufacturing in the industrial Midwest.[5]

Technological innovation transforms state economies in three ways: by creating entirely new industries when research spawns new products that meet or create new market demand; by improving existing products and rejuvenating existing markets; and by changing production processes in ways that lower costs, improve quality, or both. Often these are small advances, incremental increases in efficiency that provide a slight, often temporary, competitive edge. The more frequently these incremental advances occur, the stronger the state economy and the greater the growth in direct and indirect employment and income. Moreover, innovation begets innovation. That is, as the pool of innovators and the investments in research and development in a state increase, the number of businesses spawned or attracted by the innovation grows, reducing out-migration and increasing in-migration of workers and technicians and, in the process, generating new applications of the technologies being developed — and the more new businesses.[6]

People — highly trained management and technical specialists — and money — expenditures in research and development — drive this process. Accordingly, this subindex examines the potential pool of innovators in a state, and the pool of dollars devoted to research.

Scientists and Engineers in the Workforce

The larger the potential pool of innovators in a state, the greater the likelihood that the capacity for innovation will become the reality of innovation. Not all innovators are scientists or engineers, and not all scientists and engineers are innovators. But there is a direct correlation between the technical capacity of the labor force and an economy's ability to generate new technology-based or -enhanced businesses, and that is what we seek to measure here.

Science and Engineering Doctoral Students

This measure indicates the how extensive science training is in a state, though not the number of degree recipients who stay in the state. Nevertheless, the history of industrial innovation indicates that new businesses are spawned, more often than not, in the same place entrepreneurs received their degrees — if only to assure a steady flow of new talent. Thus, as above, we can indirectly measure the capacity for innovative business development by assessing the technical strength of the workforce.

Patents Issued

This measure aims to capture the *rate* of innovation in a state. It is weakened by the fact that patents are generally issued at the location of the company headquarters, not necessarily the lab where the innovation is developed.

University Research and Development

The close correlation between world-class university research institutions and commercial spin-off businesses has been lost on no state. Interest in the research agendas of major educational institutions has risen sharply. Budget allotments to public universities have also increased. And new university-government-industry partnerships are being formed. This measure gives us a rough approximation of the scale of research and development spending at universities in each state and the capacity for associated business development.[7]

Federal Research and Development

There is a similar correlation between federal R&D spending and new business spin-offs. But the relationship varies significantly, depending upon what *kind* of research is underway. In states where much of the federal research is classified, the problem of getting the results "over the fence" and into the state economy can be considerable.

Subindex Three: Financial Resource Capacity

The relative availability of capital in a state sends a signal to would-be entrepreneurs that their ideas can become businesses in that state, and at the same time provides the wherewithal for businesses already in the state to continue to grow. The more developed the network between bankers, venture capitalists and other financiers, businesspeople and state economic development officials, the greater the capacity for growth in the state.

The kind of capital a business requires depends on what stage of development it is in. In its infancy, as ideas are being developed and commercialized, a business needs small amounts of "patient" money — equity and relatively long-term debt. As it matures and expands it needs larger amounts of equity, working capital to finance inventory, marketing and accounts receivable, and debt financing to acquire land, buildings and equipment. To stay competitive, it will also need long-term debt and equity to finance retooling and, in some cases, ownership changes. The unavailability of capital at any of these stages can bring the entire enterprise to a halt.

State officials and business owners alike often complain about "capital gaps" in their state — the unavailability of money for expansion or start-ups, for example. This gap is more than likely to be a lack of access to capital that already exists in a state. Sometimes the gap is more perceived than real: there may be a difference in a business' desire for capital and its qualifications for acquiring capital. But fundamentally, capital availability depends upon both the underlying capital resources of the state's financial institutions *and* the how aggressively those institutions invest those resources in local businesses.

And while capital markets are increasingly national, and even international, there are still wide variations in capital availability from state to state. Some states have more competitive commercial and investment banking than others. Not all bank services and products are available universally. Formal venture capital, while increasingly mobile, still tends to be invested near where the venture firm is based, so that it can be monitored easily. And the *level* of financial resources that can be made available varies from state to state. Thus, the extent of capital gaps and their affect on development can differ significantly across the nation.

While the subject is complex (and often contentious), this subindex provides a general picture of the financial resource capacity of states, using five measures: bank deposits, loans to equity, commercial and industrial loans, venture capital, and dividends, interest and rent income.

Bank Deposits

Since deposits form the base from which banks invest, this measure provides the most basic indicator of capital availability within a state. The higher the level of deposits, adjusted for population size, the more funds there are available for lending.

Loans to Equity

Equity — the original investment of the a bank's founders plus any accumulated undivided earnings — is the base from which banks make investments. The more aggressive the bank, the more leveraged this base is in loans to consumers and businesses. This measure is designed to begin to get at how extensive commercial banks' participation is in investments that will strengthen a state's economy.

Commercial and Industrial Loans

To measure how well financial institutions are serving businesses, we first take the total of their commercial and industrial loans, and then adjust for differences in the size of the commercial and industrial sector among states by dividing by the number of non-agricultural employees in the state. This adjustment provides an indication of demand. A weakness with this measure is that the loans made by a bank in a state can be to businesses located outside that state.

Venture Capital Investments

Venture capital firms provide early-stage capital for firms with high growth potential and, as a consequence, can be instrumental in the formation and expansion of growth industries. Active venture capital participation in a state is an indicator of a rapidly developing economy and multiple investment opportunities.

Dividend, Interest and Rent Income

This measure is an indicator of the wealth of the state's residents and their ability to make investments. It is also indirectly indicates the potential availability of seed capital for new enterprises.

These measures cover a range of financing needs, from risk capital to fixed-asset financing and working capital available from commercial banks. Because of the limitations of published financial data, these measures cannot tell us what kind of businesses are receiving financing (their size, sector, location, or stage of development), about the specific types of financial instruments provided, or how the financing was used. Moreover, there are other players in the capital marketplace. They are not included here for several reasons. Thrift institutions, for example, are now able to provide business loans, but they have been slow to enter the market and are not, as yet, important sources of business capital. Commercial finance companies, while increasingly important sources of capital for small businesses, are not regulated and little information is available about their impact on a state-by-state basis.[8] Insurance companies are another source of capital for corporations, but state-by-state data on them are not available.

Finally, state governments have become increasingly important actors in the capital marketplace by creating their own public or publicly-chartered venture capital and business lending programs, by adjusting their own investment policies, and by regulating private capital institutions more strategically to achieve public development objectives. This increasingly important source of financial resource capacity is discussed in the Policy Index.

Subindex Four: Physical Infrastructure and Amenity Resource Capacity

Almost without exception, surveys of businesspeople and public officials concerned about economic development rate two issues at the top of any list of factors important to development: the condition of the basic infrastructure of the community or state, and the quality of the amenities in the area.[9]

Physical infrastructure and amenities — roads, bridges, water systems, sewage collection and treatment systems, housing stock, parks and recreation facilities, and cultural institutions — form the basic foundation upon which businesses build, and are crucial to attracting and keeping the employees businesses need to grow.

Broken water mains, overtaxed treatment plants, collapsed bridges and a pervasive failure of public agencies to invest in the maintenance of these facilities led to widespread public concern about America's "infrastructure crisis,"[10] precipitated a number of studies that proved conclusively how such facilities contributed to state economies, and led many states to rededicate themselves to improving these facilities as a central part of their economic development strategies.[11] In a similar vein, states and communities have begun to restore and enhance the amenities that define the quality of life in an area and have made substantial investments to turn amenity liabilities (such as polluted rivers and harbors and decaying waterfronts) into showcase amenity assets.

For two issues so important to the economic capacity of state, the absence of clear indicators is especially frustrating. The measures available are limited. To begin to explore the infrastructure and amenity resource capacity of states, we examine highway condition, unmet sewage treatment plant needs, bridge ratings, housing cost, the availability of doctors, distribution of foundation grant funds, and tourism spending.

Highway Condition

In an economy in which the majority of all goods are transported by truck, highway conditions are not just a measure of state infrastructure commitment, but a fundamental measure of competitiveness as well. This year we measure the percent of rural and urban interstate highway mileage with poor serviceability ratings, according to the Federal Highway Administration, a more comprehensive indicator than that used last year.

Bridge Condition

For the same reasons, this year we also examine bridge ratings — specifically, the percent of deficient bridges on public roads in each state, based upon an annual report to Congress by the Federal Highway Administration.

Sewage Treatment Needs

Without adequate sewage treatment plant capacity, existing businesses are constrained and new businesses must seek other sites. Using EPA data, we measure the dollar amount of unmet sewage treatment plant needs on a per capita basis.

Housing Cost

Many areas of the nation face shortages of available housing that threaten to constrain development prospects. However, no adequate assessments of housing quality are available at present. We explore this issue by considering the cost of housing as a percent of personal income, based upon a weighted average of fair market rent schedules for a standard unit of housing in metropolitan areas calculated by the U.S. Department of Housing and Urban Development. We assume a direct relationship between availability and costs — that is, the scarcer the housing, the higher the cost of what is available.

Doctor Availability

The number of doctors per capita is a useful though incomplete measure of the ease with which residents can obtain basic medical care and, by extension, an indirect measure of community well-being.

Foundation Grant Funds Distribution

Measuring the distribution of foundation grant funds provides us with an indirect way to capture charitable, volunteer and non-profit activities that create an environment of caring, enriching both states and the people who live in them, from the youngest to the oldest. This measure helps us understand a part of what people mean when they say: "This is a good place to live."

Tourism Spending

Another way to understand whether "this is a good place to live" is to observe people's behavior — specifically how much people inside and outside a state pay to participate in recreation and tourism activities in a state. While this is an indirect measure of amenities, it has the advantage of being able to reveal how people *value* the amenities in a state — from amusement parks to campsites.

Findings

The clear message of the state standings in the Capacity Index, perhaps even clearer than last year, is that if you want an economy that performs well and that produces jobs and income that are widely shared, a long-term commitment to investing in the basic foundations of the economy — an educated workforce, basic research, physical infrastructure and amenities, and financial capital — is essential.

In fact, virtually the only states at the top of the Performance Index that are not *also* at the top of the Capacity Index are states that owe the lion's share of their booming economies to spillover effects from Massachusetts — a state with consistently strong capacity investments.

What's more, the states that score well on the Capacity Index — such as Massachusetts, Maryland, Connecticut and New Jersey — are likely to continue to hold their leads. Having made significant investments for the future, these states are ensuring that their success is no "flash in the pan."

In the second tier of this Index are several states that have a good record of commitment to capacity-building and more recent rebuilding, but that either have been faced with massive economic restructuring (including New York, Wisconsin, Ohio and Michigan, for example) or are currently living through a cyclical transition (Oregon and Texas, for example).

At least one state -- New Mexico — performs reasonably well with a *C* on the Capacity Index thanks largely to the national research labs it hosts. But it may never be able to translate these assets into economic performance due to the limitations of its workforce and the fact that much of the research is "top secret" and, therefore, difficult to commercialize.

At the opposite end of this Index, the picture is just as clear. Nearly all of the states receiving *D*'s or *F*'s are rural Southern or Appalachian states, including Arkansas, Kentucky, Mississippi and West Virginia. With very few exceptions, the relationship between Capacity and Performance is direct. Virtually all of the low performing Capacity states' economies are performing poorly (Maine, Indiana and Nevada are the exceptions). The reasons are the same for all of them: a legacy of low educational attainment levels, limited technological and research capacity, modest or minimal capital markets, and a history of inadequate investments in physical infrastructure. Thanks to the work of Southern leaders and institutions like the Southern Growth Policies Board, the tide is beginning to turn in the Southeast, though it may be a while before the payoff is widely visible. On the other hand, there is little evidence of a similar consistent commitment in the rural Western and Plains states at the bottom of this list.

Human Resource Subindex Findings

Perhaps the most intriguing finding from the Human Resource subindex is that to generate and support significant economic growth, it isn't enough to have relatively high adult literacy and high school graduation rates; you must also have high college attainment levels. Indeed, there are indications in several states — including Colorado, Alaska, Hawaii, California and New York, for example — that a high ranking in college attainment can offset modest and even poor high school graduation and/or literacy rates, ***even if the college attainment levels are due to "imported" talent***. To an extent, there is something almost self-fulfilling about this issue: states that lack significant employment opportunities often find that their best-educated children are their principal "export."

Nearly three-quarters of the states with *A*'s or *B*'s in this subindex are rural, fairly remote states that have historically placed a high value on high school completion. Public schools tend to be community focal points in these states. As a consequence they also tend to have very high overall adult literacy levels. The problem these states face, in terms of future competitiveness, is that high school is where many of them stop. On the measure of college attainment, many of these same states have only mediocre scores.

At the bottom of this index are those states which score uniformly poorly in all three measures of educational attainment, and all are Southern or Appalachian states.

Technological Resource Subindex Findings

The Technological Resource subindex illustrates the close relationship between economic performance and the existence of a strong technology research base. It also illustrates the limitations of this relationship. To a greater or lesser degree, the states that receive *A*'s and *B*'s in this subindex have world-class research universities, technology-producing corporations, national labs — or all three.

Many of the leaders in the Performance Index — Massachusetts, Connecticut, Maryland and Delaware, for example — are also leaders in the Technology subindex. The competitiveness of their economies is driven, to a significant extent, by their ability to convert high proportions of technology specialists and research dollars into businesses and jobs. Ironically, two other leading technology research states — New Mexico and Utah — have been unable to make this conversion. We suspect the reason is the nature of the research itself. These states have found it extraordinarily difficult to get the defense-related and typically "top secret" results of this research "over the fence" — that is, commercialized in such a way that it spawns new local companies and new jobs.

At the other end of the spectrum are what might best be described as "low tech states." They have few scientists and engineers in their population, are producing relatively few new ones in their universities, and have limited federal and university R&D funding. As elsewhere, they tend to be Southern, rural, or both.

Financial Resource Subindex Findings

The results of this subindex read like a catalogue of the financial "haves" and "have nots." The top of the subindex is dominated by the states with the strongest national and international financial markets and institutions: New York, Massachusetts, California, Texas, Illinois and Connecticut, among others.

Right behind these leaders are several of the nation's emerging financial centers: Georgia, North Carolina, Delaware and Florida, among others. Increasingly, the banking centers in these states — Atlanta, Raleigh-Durham, Wilmington and Miami — are becoming major forces in the future of not just the states where they are located, but of entire regions as well.

In addition, we note the sharp increase in the financial capital standings of Michigan, which in the last few years has created the most advanced capital market innovations in the nation and, through public pension fund investment reform, the largest venture capital investment institution in the nation.

At the bottom of this subindex are a number of states in the South, the Plains and the Mountain West — predominantly rural states chronically short of capital. It is worth noting, however, that there may well be a cause and effect relationship between the relative lack of capital in these states and the growing strength of the regional capital centers that serve them

— Georgia in the South, for example, Texas and Colorado in the Southern Plains and Southwest, and Minnesota in the Northern Plains. When businesses in these states need capital and local institutions cannot provide it, they may turn to the regional centers. What might be lost in having to approach these regional centers is a responsiveness and sensitivity to local conditions.

Infrastructure and Amenity Resource Subindex Findings

Overall, the clearest pattern in this varied subindex is at the bottom end: states that do poorly on the Performance Index, perhaps not surprisingly, do poorly on the Infrastructure and Amenity subindex as well. Moreover, they tend to be Southern or energy industry-dependent states as well.

Just above this bottom tier are most — but not all — of the nation's older industrial states. Were this subindex limited to infrastructure, it is likely many of these states would be at the bottom; they still have not overcome a legacy of postponed maintenance. They would be joined by other, poorer states that have also long postponed needed improvements, including Kentucky and West Virginia, among others.

Within the individual measures in this subindex are several revealing stories. The *Doctor Availability* measure underscores what many residents of rural states already know: there is a clear shortage of doctors in our most thinly populated states. The leaders in this measure are principally states that host several large research hospitals and medical institutions. In the "housing" measure, it would appear that the states at the bottom of the list are smaller states with very dominant metropolitan areas that are "sellers' markets" — that is, there are relatively fewer housing units of the type measured, and they cost more, as a percentage of total income. States at the top of the list in the housing measure appear to be those with declining industrial cities that have excess capacity in the type of housing measured — in short, a clear case of more supply than demand. Finally, in the *Sewage Treatment Needs* measure, the states that have fallen the most since last year tend to be fast-growing states that appear to be outstripping current capacity.

In the end, given the variety of the measures in this Index, the clearest picture is at the Index-wide level and the message is clear: investments in capacity are directly linked to eventual economic performance increases. Postponing such investments simply mortgages the future.

Capacity Data

	HUMAN RESOURCE CAPACITY						TECHNOLOGICAL RESOURCE CAPACITY										FINANCIAL	
	High School Graduation		Adult Illiteracy		College Attainment		Sci. & Engin. per 1,000 wkrs.		Sci./Eng. Stud. per 1,000		Patents Issued per 1,000 pop.		Univ. R&D per capita		Fed. R&D per capita		Bank Deposits per 1,000 pop.	
	%	Rank	%	Rank	%	Rank	#	Rank	#	Rank	#	Rank	$	Rank	$	Rank	$	Rank
Alabama	63.0	44	13	31	12.6	45	38.5	31	10.9	36	0.65	44	32.6	31	293.4	9	5,725	46
Alaska	67.1	38	7	2	22.4	2	47.7	15	7.5	47	0.49	46	51.8	12	91.8	25	7,610	22
Arizona	64.5	40	12	25	16.8	19	37.0	34	21.6	5	1.83	13	48.4	17	120.0	22	7,172	26
Arkansas	75.7	21	15	40	9.7	50	32.7	39	4.9	49	0.28	49	14.9	49	17.3	49	6,681	34
California	65.8	39	14	33	19.8	6	56.2	6	15.8	15	1.95	11	50.8	15	426.6	7	7,707	19
Colorado	72.2	30	8	4	23.0	1	64.8	2	22.6	4	1.56	18	53.8	11	500.8	4	6,555	36
Connecticut	80.4	10	12	25	21.2	3	63.2	4	13.6	28	4.06	2	61.2	6	180.9	13	8,240	15
Delaware	69.9	35	11	17	16.3	21	54.5	7	18.8	7	4.34	1	45.5	22	47.4	34	24,117	1
Florida	61.2	49	15	40	14.7	34	29.1	48	10.8	37	1.00	26	20.1	45	124.1	19	7,402	24
Georgia	62.6	46	14	33	15.3	27	31.8	43	10.8	39	0.66	42	46.7	19	41.1	38	6,253	40
Hawaii	73.8	26	15	40	20.3	4	42.8	26	18.5	8	0.40	48	54.0	10	51.8	32	8,769	11
Idaho	76.7	15	8	4	16.1	22	44.8	22	10.3	41	0.93	29	23.7	41	266.2	10	5,916	42
Illinois	74.0	25	14	33	14.5	35	42.0	28	15.8	16	2.04	8	37.9	27	64.5	29	9,420	6
Indiana	76.4	16	11	17	12.4	46	44.6	23	14.0	25	1.56	17	32.0	32	53.6	31	7,346	25
Iowa	86.5	3	10	14	14.1	38	40.0	29	17.8	10	1.17	24	51.3	14	78.6	27	9,133	8
Kansas	81.4	9	9	9	15.7	25	33.6	38	17.3	11	0.75	35	29.8	37	45.9	37	8,743	12
Kentucky	68.2	36	15	40	11.0	48	30.8	44	7.8	46	0.67	41	17.6	46	15.8	50	7,027	29
Louisiana	54.7	50	16	47	13.4	42	37.8	32	9.9	42	0.82	34	29.9	35	20.4	48	7,003	30
Maine	78.6	11	11	17	14.0	39	39.2	30	4.6	50	0.58	45	16.5	47	30.7	43	4,447	49
Maryland	77.7	12	12	25	19.8	6	58.5	5	14.8	19	1.38	21	133.3	1	1,011.0	2	6,513	37
Massachusetts	76.3	17	11	17	20.0	5	64.5	3	36.6	1	2.53	4	110.3	2	555.6	3	10,056	4
Michigan	71.9	31	11	17	15.2	29	52.5	10	15.3	18	2.27	6	37.3	28	50.3	33	6,782	31
Minnesota	90.6	1	9	9	16.7	20	47.2	16	13.8	26	2.21	7	47.9	18	122.2	21	9,240	7
Mississippi	61.8	48	16	47	13.0	44	30.0	46	8.8	44	0.24	50	22.7	43	54.5	30	5,756	44
Missouri	76.1	18	12	25	14.0	39	46.7	17	13.0	29	0.95	28	36.8	30	133.8	17	8,592	14
Montana	82.9	8	8	4	17.3	15	29.3	47	11.1	35	0.65	43	32.0	33	31.7	42	7,479	23
Nebraska	86.9	2	9	9	16.1	22	37.8	32	14.5	21	0.83	33	43.7	23	25.7	45	9,053	9
Nevada	63.9	42	9	9	15.1	31	52.5	10	5.6	48	0.72	36	23.7	40	480.8	6	6,279	39
New Hampshire	75.2	22	9	9	18.4	13	49.7	13	8.6	45	2.28	5	41.1	25	132.4	18	6,693	32
New Jersey	77.3	13	14	33	18.6	12	53.3	9	14.3	24	3.60	3	23.7	42	233.7	12	7,752	17
New Mexico	71.9	31	14	33	17.3	15	50.0	12	17.9	9	0.95	27	80.1	3	1,690.3	1	5,763	43
New York	62.7	45	16	47	18.7	11	45.8	21	23.7	3	1.77	14	58.9	7	178.0	14	14,379	2
North Carolina	70.3	34	14	33	13.4	42	30.3	45	12.5	31	0.85	31	42.8	24	78.7	26	6,146	41
North Dakota	86.1	4	12	25	15.2	29	24.5	50	14.3	23	0.69	38	48.8	16	39.8	39	8,958	10
Ohio	76.1	18	11	17	14.8	33	48.7	14	17.2	12	1.97	10	26.9	38	148.1	16	6,459	38
Oklahoma	71.1	33	11	17	15.7	25	46.1	20	12.8	30	1.86	12	29.9	36	22.4	46	7,670	20
Oregon	72.7	29	8	4	17.2	17	42.3	27	13.7	27	1.42	19	45.7	20	47.4	34	5,361	48
Pennsylvania	77.2	14	12	25	13.8	41	46.7	17	15.7	17	2.01	9	45.6	21	109.4	24	8,614	13
Rhode Island	67.6	37	15	40	15.3	27	36.2	36	20.4	6	1.04	25	65.8	5	403.1	8	8,131	16
South Carolina	62.4	47	15	40	14.2	36	32.1	42	10.5	40	0.71	37	24.2	39	36.4	41	3,900	50
South Dakota	85.1	5	11	17	14.2	36	24.6	49	11.6	34	0.42	47	15.6	48	21.2	47	11,391	3
Tennessee	64.1	41	15	40	11.9	47	36.6	35	10.8	38	0.69	39	21.6	44	123.0	20	6,687	33
Texas	63.2	43	16	47	16.0	24	46.2	19	14.5	22	1.41	20	40.7	26	114.6	23	9,303	5
Utah	75.9	20	6	1	15.1	31	53.4	8	26.9	2	1.31	22	67.6	4	165.2	15	5,412	47
Vermont	83.4	7	10	14	19.5	8	32.5	41	11.6	33	1.63	16	54.9	9	75.8	28	7,666	21
Virginia	73.7	27	13	31	19.2	9	43.8	24	16.9	13	0.87	30	31.8	34	485.6	5	7,070	27
Washington	74.9	23	8	4	18.8	10	71.6	1	12.4	32	1.29	23	51.5	13	258.6	11	5,744	45
West Virginia	72.8	28	14	33	10.5	49	32.7	39	9.7	43	0.67	40	6.7	50	46.4	36	6,670	35
Wisconsin	84.0	6	10	14	17.9	14	43.0	25	16.8	14	1.68	15	55.6	8	37.8	40	7,065	28
Wyoming	74.3	24	7	2	17.2	17	35.2	37	14.6	20	0.83	32	36.8	29	29.6	44	7,721	18

Please refer to *Capacity Index Data Sources* and the *Capacity Index* text for further detail on individual measures.

RESOURCE CAPACITY

PHYSICAL INFRASTRUCTURE AND AMENITY RESOURCE CAPACITY

Loans To Equity		Comm. & Ind. Loans per 1,000 wkrs.		Venture Capital		Div/Int/Rent Inc. per capita		Highway Deficiency		Bridge Deficiency		Sewage Needs per capita		Housing Costs		Doctors per 1,000 pop.		Found. Grants per 1,000 pop.		Tour. Spend. per capita	
Ratio	Rank	$	Rank	Score	Rank	$	Rank	%	Rank	%	Rank	$	Rank	%	Rank	#	Rank	$	Rank	$	Rank
9.56	32	3,288	32	0.18	31	1,471	30	0.2	7	48	34	120	12	39.5	23	1.56	43	28	50	39	48
11.72	25	4,881	9	0.00	46	244	50	30.0	45	11	2	324	39	43.2	34	1.58	41	468	26	74	25
42.98	4	3,535	24	0.29	26	1,995	22	5.7	22	7	1	171	23	47.5	41	2.21	15	172	40	86	19
6.85	44	3,164	34	0.03	40	1,022	32	4.2	18	48	34	112	11	41.2	30	1.56	43	37	48	77	22
43.04	3	4,640	10	3.34	2	18,944	1	6.1	25	26	14	195	25	46.2	38	2.67	6	1,293	8	89	17
9.04	38	3,140	37	2.25	4	2,037	21	6.8	28	36	26	24	1	38.5	17	2.25	14	1,060	11	173	4
31.88	7	4,285	11	2.53	3	2,757	16	0.6	10	63	48	342	42	35.8	5	3.05	4	1,213	9	37	49
10.45	29	20,270	1	0.80	12	403	46	0.0	1	19	8	82	6	41.7	32	2.05	20	3,987	1	99	14
16.52	16	2,837	41	0.14	33	10,306	3	2.9	15	23	12	338	40	38.5	16	2.36	11	94	46	113	9
16.26	18	3,270	33	1.17	8	2,753	17	0.0	1	44	29	107	10	40.4	26	1.78	33	731	17	66	32
24.15	10	3,326	31	0.32	25	578	42	0.0	1	27	15	291	37	48.0	43	2.58	7	776	15	123	8
9.53	33	3,865	19	0.00	46	471	44	14.2	39	29	17	170	21	53.1	50	1.38	49	120	45	75	23
13.04	21	7,014	3	0.58	16	7,810	5	6.3	26	31	21	242	31	40.9	28	2.21	15	2,377	4	48	45
9.49	34	3,041	39	0.13	34	2,842	14	7.3	31	51	38	283	35	35.7	4	1.57	42	551	24	49	43
5.57	50	2,645	44	0.04	38	1,874	25	3.8	17	49	37	227	29	38.9	18	1.55	45	250	35	56	40
6.55	45	3,764	21	0.01	44	1,607	27	66.8	50	52	39	159	19	34.5	2	1.85	31	441	27	63	37
9.30	35	4,000	14	0.07	35	1,567	29	5.3	21	62	47	364	43	39.7	24	1.65	39	332	29	49	43
9.16	36	4,051	13	0.04	38	1,956	23	2.0	12	46	30	206	27	47.6	42	1.90	28	212	37	58	38
10.01	31	2,564	45	0.66	15	591	41	7.7	32	30	20	251	33	49.7	46	1.96	23	708	18	141	7
14.45	20	2,908	40	0.38	21	2,903	13	0.5	9	36	26	151	18	37.7	11	3.60	1	522	25	65	34
30.27	8	6,269	5	5.80	1	4,269	10	2.3	13	35	23	671	48	45.1	36	3.38	2	902	13	50	42
14.86	19	3,868	18	0.20	30	5,046	9	25.3	43	29	17	339	41	37.6	10	1.91	25	984	12	68	28
12.13	24	5,544	8	0.81	11	2,584	20	5.2	19	29	17	240	30	40.3	25	2.26	13	3,501	2	107	11
8.03	41	2,397	48	0.01	46	839	34	29.7	44	54	41	165	20	51.0	49	1.35	50	142	42	48	45
10.06	30	3,374	29	0.05	36	3,199	12	31.6	46	63	48	192	24	36.7	8	1.98	22	684	19	65	34
7.01	43	4,224	12	0.03	40	476	43	6.0	24	60	45	53	3	46.2	37	1.63	40	299	32	96	15
6.12	46	2,646	43	0.05	36	1,000	33	8.9	35	59	44	81	5	35.1	3	1.76	35	776	15	68	28
8.49	40	2,480	47	0.15	32	606	38	9.6	36	16	4	140	14	48.2	44	1.74	37	196	39	2,960	1
10.61	27	2,520	46	1.19	7	674	37	0.0	1	46	30	813	50	43.0	33	2.06	19	225	36	163	6
17.61	13	3,851	20	1.59	6	6,301	7	8.1	33	35	23	464	45	38.4	15	2.44	9	874	14	313	2
7.92	42	3,427	27	0.29	26	679	36	34.8	48	18	6	94	8	50.3	48	1.91	25	274	33	112	10
75.45	1	11,109	2	0.93	9	13,329	2	5.2	19	67	50	688	49	37.7	13	3.23	3	2,891	3	51	41
27.10	9	3,709	22	0.35	22	2,665	19	2.4	14	57	43	170	22	37.9	14	1.87	30	635	20	83	21
5.82	48	3,400	28	0.00	46	424	45	0.0	1	53	40	25	2	39.5	22	1.75	36	133	44	64	36
17.42	14	3,515	25	0.22	29	5,845	8	11.7	38	21	9	304	38	34.2	1	2.03	21	560	23	48	45
8.89	39	3,934	17	0.03	40	1,728	26	19.0	41	56	42	103	9	43.3	35	1.55	45	633	21	87	18
36.74	5	3,993	15	1.98	5	1,607	28	33.1	47	18	6	288	36	41.3	31	2.20	17	1,107	10	86	19
17.42	15	6,084	6	0.35	22	7,089	6	16.5	40	36	26	137	13	38.9	19	2.37	10	2,212	5	66	32
48.26	2	5,970	7	0.49	19	593	40	37.2	49	22	11	398	44	41.0	29	2.54	8	1,705	6	34	50
20.13	11	1,970	50	0.41	20	1,238	31	3.7	16	21	9	147	16	40.7	27	1.67	38	162	41	91	16
11.20	26	3,952	16	0.03	40	386	47	0.0	1	48	34	85	7	39.4	21	1.54	47	64	47	73	26
12.40	23	3,131	38	0.79	13	1,955	24	7.1	30	46	30	199	26	39.0	20	1.93	24	304	31	75	23
12.58	22	6,411	4	0.87	10	8,860	4	8.6	34	35	23	146	15	36.8	9	1.81	32	1,378	7	71	27
16.35	17	2,803	42	0.56	17	602	39	5.9	23	15	3	216	28	48.7	45	1.88	29	137	43	107	11
10.54	28	3,665	23	0.53	18	311	48	10.3	37	17	5	275	34	49.8	47	2.72	5	256	34	251	3
20.03	12	3,146	36	0.35	22	3,477	11	6.8	28	33	22	148	17	37.7	12	2.20	17	327	30	68	28
34.51	6	3,491	26	0.69	14	2,753	18	0.6	10	27	15	470	46	36.7	7	2.31	12	582	22	67	31
5.65	49	2,322	49	0.00	46	743	35	6.7	27	60	45	479	47	46.4	39	1.78	33	37	49	57	39
9.04	37	3,154	35	0.29	26	2,825	15	23.5	42	46	30	249	32	36.4	6	1.91	25	333	28	106	13
5.91	47	3,341	30	0.00	46	275	49	0.2	7	25	13	65	4	47.0	40	1.48	48	210	38	167	5

Capacity Data Sources

Subindex One: Human Resource Capacity

High School Graduation

Percent of high school entrants graduating, 1986. Adjusted for migration and unclassified students.
Source: State Policy Research Inc., "Table G-26" *State Policy Data Book '87* (Alexandria, VA: State Policy Research, Inc., 1987).

Adult Illiteracy

Percent of adults age 18-64 considered "illiterate," 1985.
Source: U.S. Department of Education estimates based on the "English Language Proficiency Survey," 1985, reported in Jack Brizius and Susan Foster, "Adult Literacy," *State Policy Reports*, November 9, 1987.

College Education Attainment

Percent of population over 25 with at least four years of college, 1980.
Source: U.S. Department of Education, Center for Education Statistics, Office of Educational Research and Improvement, *Digest of Education Statistics, 1985-1987* (Washington, D.C.: Government Printing Office, 1987).

Subindex Two: Technological Resource Capacity

Scientists and Engineers in the Workforce

Scientists and engineers per 1,000 workers, 1986.
Source: National Science Foundation, Division of Science Resource Studies, "U.S. Scientists and Engineers," 1987.

Science and Engineering Doctoral Students

Students in science and engineering doctoral programs, per 1,000 population, 1986.
Source: National Science Foundation, Division of Science Resource Studies, "Early Release of Summary Statistics on Academic Science/Engineering Resources," October 1987.

Patents Issued

Patents issued per 1,000 residents.
Source: U.S. Patent and Trademark Office, Office of Documentation, "Technology Assessment and Forecast Report: Patent Counts by Country/State and Year, 1/1963 - 12/1986," April 1987.

University Research and Development

Research and development expenditures at doctorate granting institutions, 1986. Dollars per capita.
Source: National Science Foundation, Division of Science Resource Studies, "Early Release of Summary Statistics on Academic Science/Engineering Resources," October 1987.

Federal Research and Development

Federal obligations for research and development, 1985. Dollars per capita.
Source: National Science Foundation, Division of Science Resource Studies, "Federal Funds for Research and Development, Fixed Years 1986, 1987 and 1988," 1987.

Subindex Three: Financial Resource Capacity

Bank Deposits

Commercial bank deposits, domestic activities, per 1,000 residents, 1986. Dollars.
Source: Federal Deposit Insurance Corporation, Division of Research, unreleased data, 1988. Calculations by The Corporation for Enterprise Development.

Loans to Equity

Total loans and leases as a percent of total equity, commercial banks, domestic activities, 1986. Ratio.
Source: Federal Deposit Insurance Corporation, Division of Research, unreleased data, 1988. Calculations by The Corporation for Enterprise Development.

Commercial and Industrial Loans

Commercial and industrial loans per 1,000 production workers on non-agricultural payrolls, 1986. Dollars.
Source: Federal Deposit Insurance Corporation, Division of Research, unreleased data, 1988. *Employment and Earnings*, May 1987. Calculations by The Corporation for Enterprise Development.

Venture Capital Investments

Venture capital funds' investments in the state, per capita, 1986. Dollars.
Source: Venture Economics, Inc., "1986 State by State Venture Capital Investments," Wellesley Hills, MA, 1987.

Dividend, Interest and Rent Income

Dividend, interest and rent income per capita, 1986. Dollars.
Source: *Survey of Current Business*, August 1987. Calculations by The Corporation for Enterprise Development.

Subindex Four: Physical Infrastructure and Amenity Resource Capacity

Highway Condition

Deficient interstate mileage, 1985. Percent.
Source: Federal Highway Administration, *State of the Nation's Highways: Report to the Congress*, June 1987.

Bridge Condition

Deficient number of bridges, 1986. Percent.
Source: Federal Highway Administration, *Eighth Annual Report to Congress: Highway Bridge Replacement and Rehabilitation Program*, 1987.

Sewage Treatment Needs

Estimated backlog of sewage treatment plant unmet needs, per capita, 1986. Dollars. *Source:* Environmental Protection Agency, *Assessment of Needed Publicly Owned Wastewater Treatment Facilities in the United States: 1986 Needs Survey Report to Congress*, September 1987.

Housing Cost

Weighed annual average fair market rent schedules, standard two-bedroom unit of housing, metropolitan areas (1988) as a percent of per capita income (1986). *Source:* Department of Housing and Urban Development, "Fair Market Schedules for Use in the Existing Housing Certificate Program," *Federal Register*, August 28, 1987. State Policy Research, Inc., "Table B-1," *State Policy Data Book '87* (Alexandria, VA: State Policy Research, Inc., 1987). Calculations by The Corporation for Enterprise Development.

Doctor Availability

Active physicians, federal and non-federal, per 1,000 residents, 1985. *Source:* American Medical Association, *Physicians Characteristics and Distribution* (Chicago: American Medical Association, 1985).

Foundation Grant Funds Distribution

State distribution of grants received, per 1,000 residents, 1985. Dollars. *Source:* The Foundation Center, *Grants for Arts and Cultural Programs 1986* (Washington, D.C.: The Foundation Center, 1987).

Tourism Spending

U.S. domestic travel-generated entertainment and recreation receipts per capita, 1985. Dollars. *Source:* U.S. Travel Data Center, *Impact of Travel on State Economies, 1985* (Washington, D.C.: U.S. Travel Data Center, June 1987).

All per capita population calculations were made by The Corporation for Enterprise Development. Source: 1986 population, Bureau of the Census, Press Release December 31, 1986.

Endnotes

1. Among the many newspapers and magazines highlighting America's lagging investments in the basic building blocks, see Laura Tyson, "The Real Supply Side Challenge," *California Business*, December 1987.

2. See Edward Malecki; "Technology and Regional Development: A Survey," *International Regional Science Review* 8 (1983); and Edward F. Denison, *Trends in American Economic Growth, 1929-1982* (Washington, D.C.: The Brookings Institution, 1985).

3. William Johnston, *Workforce 1000: Work and Workers for the 21st Century* (Indianapolis: Hudson Institute, June 1987).

4. U.S. Congress, Joint Economic Committee, *Location of High Tech Firms and Regional Economic Development* (Washington, D.C.: Government Printing Office, June 1982).

5. Edward Malecki, "Public and Private Sector Interrelationships, Technology Change, and Regional Development," Papers of the Regional Science Association, 47, 1981.

6. U.S. Congress, Office of Technology Assessment, *Technology Innovation and Regional Economic Development* (Washington, D.C.: Government Printing Office, July 1984); and U.S. Congress, Congressional Budget Office, "The Productivity Problem: Alternatives for Action," A CBO Study, January 1981.

7. Private research spending, though a critical measure, is often proprietary and therefore unavailable.

8. Mt. Auburn Associates, *The Design and Management of State and Local Revolving Loan Funds* (Somerville, MA: Mt. Auburn Associates, 1987).

9. See, for example, Roger W. Schmenner, *Making Business Location Decisions* (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1982); Michael Kieschnick, *Taxes and Growth: Business Incentives and Economic Development* (Washington, D.C.: Council of State Planning Agencies, 1981); Takeshi Nakabayashi, "A Survey on Location Decisions of Japanese Companies in the U.S.," unpublished paper for Mt. Auburn Associates and The Corporation for Enterprise Development, March 1987.

10. See Pat Choate and Susan Walter, *America in Ruins* (Washington, D.C.: Council of State Planning Agencies, 1981).

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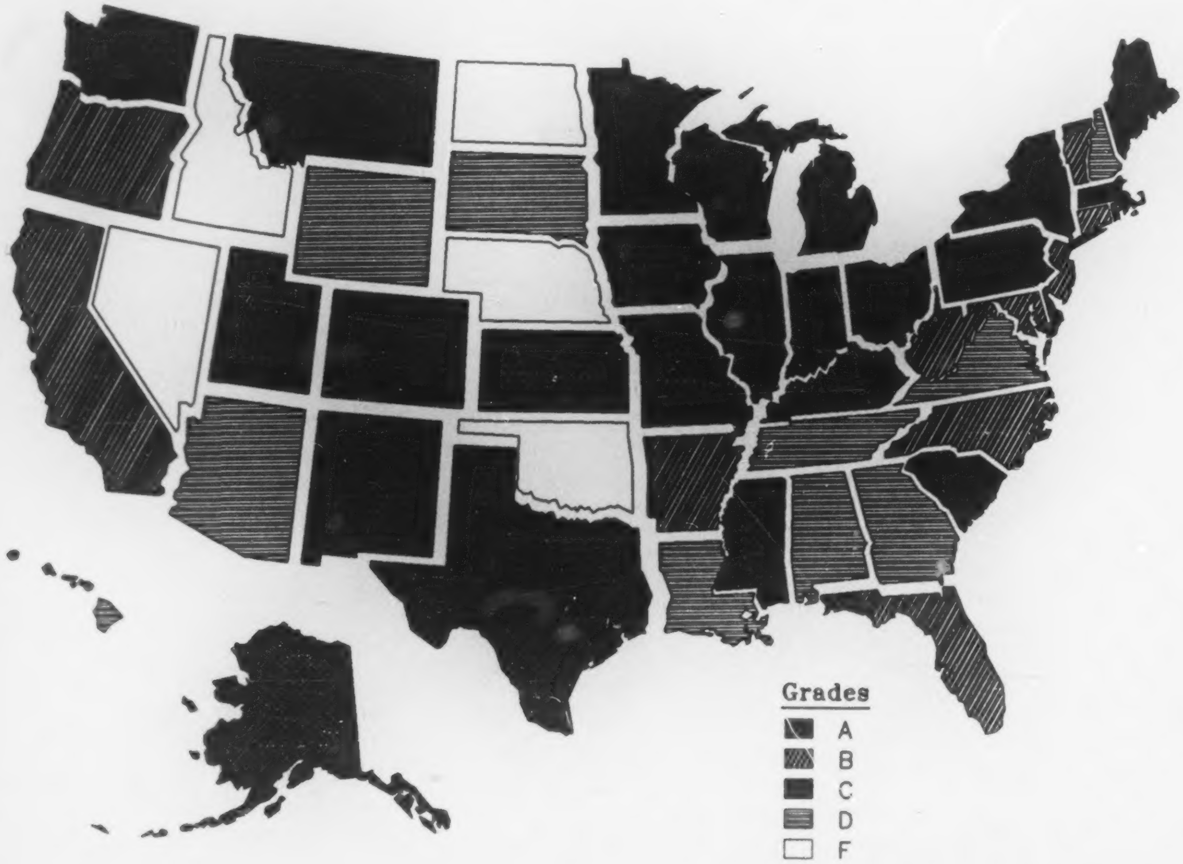
4 The Policy Index


Grades
A
B
C
D
F

Policy Report Card

	Governance Subindex		Tax & Fiscal Policy Subindex		Education Policy Subindex		Infra./Amenities Investment Subindex		Mobilizing Capital Subindex		Enterprise/ Business Subindex		Disadv. Indivs./ Communities Subindex		FINAL GRADE	
	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade
Alabama	**26**	**C**	**40**	**D**	**45**	**D**	**40**	**D**	**34**	**C**	**18**	**B**	**35**	**C**	**44**	**D**
Alaska	26	C	29	C	23	C	16	B	27	C	50	F	25	C	34	C
Arizona	**26**	**C**	**12**	**B**	**39**	**D**	**39**	**D**	**44**	**D**	**39**	**D**	**13**	**B**	**38**	**D**
Arkansas	1	A	44	D	4	A	36	D	15	B	7	A	28	C	15	B
California	**1**	**A**	**1**	**A**	**37**	**D**	**2**	**A**	**8**	**A**	**27**	**C**	**4**	**A**	**11**	**B**
Colorado	1	A	16	B	47	F	31	C	27	C	7	A	31	C	26	C
Connecticut	**26**	**C**	**33**	**C**	**8**	**A**	**17**	**B**	**8**	**A**	**18**	**B**	**6**	**A**	**12**	**B**
Delaware	26	C	14	B	10	A	11	B	34	C	45	D	34	C	31	C
Florida	**26**	**C**	**30**	**C**	**2**	**A**	**9**	**A**	**34**	**C**	**27**	**C**	**16**	**B**	**18**	**B**
Georgia	26	C	24	C	25	C	47	F	34	C	36	D	49	F	45	D
Hawaii	**26**	**C**	**28**	**C**	**42**	**D**	**27**	**C**	**34**	**C**	**27**	**C**	**41**	**D**	**39**	**D**
Idaho	26	C	18	B	50	F	50	F	44	D	46	F	20	B	46	F
Illinois	**1**	**A**	**46**	**F**	**49**	**F**	**10**	**A**	**8**	**A**	**7**	**A**	**44**	**D**	**28**	**C**
Indiana	1	A	9	A	20	B	28	C	2	A	7	A	23	C	9	A
Iowa	**1**	**A**	**22**	**C**	**42**	**D**	**34**	**C**	**4**	**A**	**7**	**A**	**38**	**D**	**21**	**C**
Kansas	1	A	38	D	34	C	30	C	25	C	7	A	15	B	23	C
Kentucky	**1**	**A**	**25**	**C**	**10**	**A**	**32**	**C**	**44**	**D**	**39**	**D**	**33**	**C**	**33**	**C**
Louisiana	47	F	21	C	29	C	26	C	27	C	36	D	50	F	42	D
Maine	**1**	**A**	**5**	**A**	**3**	**A**	**8**	**A**	**8**	**A**	**27**	**C**	**18**	**B**	**7**	**A**
Maryland	26	C	4	A	17	B	1	A	19	B	18	B	31	C	12	B
Massachusetts	**26**	**C**	**6**	**A**	**17**	**B**	**3**	**A**	**4**	**A**	**6**	**A**	**1**	**A**	**5**	**A**
Michigan	1	A	15	B	26	C	6	A	1	A	1	A	7	A	1	A
Minnesota	**1**	**A**	**2**	**A**	**31**	**C**	**13**	**B**	**19**	**B**	**7**	**A**	**5**	**A**	**8**	**A**
Mississippi	1	A	23	C	37	D	49	F	15	B	18	B	36	D	32	C
Missouri	**1**	**A**	**32**	**C**	**29**	**C**	**28**	**C**	**4**	**A**	**7**	**A**	**48**	**F**	**22**	**C**
Montana	1	A	48	F	20	B	22	C	25	C	18	B	19	B	24	C
Nebraska	**26**	**C**	**37**	**D**	**45**	**D**	**46**	**F**	**44**	**D**	**26**	**C**	**42**	**D**	**49**	**F**
Nevada	47	F	42	D	48	F	41	D	27	C	49	F	47	F	50	F
New Hampshire	**47**	**F**	**50**	**F**	**39**	**D**	**22**	**C**	**19**	**B**	**46**	**F**	**9**	**A**	**41**	**D**
New Jersey	26	C	47	F	5	A	3	A	19	B	4	A	36	D	17	B
New Mexico	**26**	**C**	**7**	**A**	**7**	**A**	**24**	**C**	**34**	**C**	**18**	**B**	**45**	**D**	**27**	**C**
New York	1	A	10	A	15	B	3	A	3	A	7	A	23	C	4	A
North Carolina	**1**	**A**	**26**	**C**	**10**	**A**	**36**	**D**	**34**	**C**	**7**	**A**	**30**	**C**	**18**	**B**
North Dakota	47	F	41	D	28	C	43	D	27	C	39	D	38	D	47	F
Ohio	**1**	**A**	**11**	**B**	**35**	**C**	**7**	**A**	**8**	**A**	**1**	**A**	**3**	**A**	**6**	**A**
Oklahoma	26	C	45	D	44	D	33	C	49	F	39	D	28	C	48	F
Oregon	**1**	**A**	**34**	**C**	**41**	**D**	**15**	**B**	**15**	**B**	**7**	**A**	**9**	**A**	**14**	**B**
Pennsylvania	1	A	19	B	6	A	14	B	8	A	1	A	9	A	3	A
Rhode Island	**26**	**C**	**17**	**B**	**24**	**C**	**19**	**B**	**19**	**B**	**39**	**D**	**27**	**C**	**30**	**C**
South Carolina	1	A	8	A	1	A	42	D	4	A	18	B	20	B	10	A
South Dakota	**1**	**A**	**49**	**F**	**14**	**B**	**48**	**F**	**27**	**C**	**27**	**C**	**40**	**D**	**37**	**D**
Tennessee	26	C	43	D	32	C	24	C	44	D	46	F	22	C	43	D
Texas	**26**	**C**	**31**	**C**	**10**	**A**	**43**	**D**	**34**	**C**	**27**	**C**	**26**	**C**	**35**	**C**
Utah	1	A	20	B	33	C	38	D	34	C	27	C	12	B	28	C
Vermont	**26**	**C**	**35**	**C**	**16**	**B**	**18**	**B**	**8**	**A**	**27**	**C**	**16**	**B**	**20**	**B**
Virginia	1	A	39	D	17	B	35	C	49	F	18	B	43	D	36	D
Washington	**1**	**A**	**27**	**C**	**36**	**D**	**12**	**B**	**33**	**C**	**36**	**D**	**8**	**A**	**25**	**C**
West Virginia	1	A	13	B	27	C	20	B	34	C	27	C	14	B	16	B
Wisconsin	**1**	**A**	**9**	**A**	**9**	**A**	**21**	**C**	**19**	**B**	**4**	**A**	**1**	**A**	**2**	**A**
Wyoming	26	C	36	D	22	C	45	D	15	B	39	D	46	F	40	D

4

POLICY

There is no finish line in the race for the economic future. Like the horizon, the goal advances ahead of us even as we approach it. It's probably just as well: our economy is changing so quickly these days that it is hard enough just ensuring that you are on the right track. "Competitiveness," therefore, is determined not by whether one wins or loses, but by how well one plays the game. And while resources are limited, each state has the power to improve its competitive position in the race.

That's exactly what many of them are doing. One by one, states are focusing on creating economic environments that encourage the birth of new businesses and the expansion of existing businesses within their own borders, while downplaying the old zero-sum game of "smokestack chasing."[1] If these initiatives are attractive to businesses elsewhere, all the better.

This new focus demonstrates a much clearer understanding by state officials about the role public actors play in our private marketplace economy. It used to be said that: "The government which governs best, governs least." Today, as it becomes clearer that there is a direct relationship between public investments in capacity-building and the vitality of private industry, a more appropriate perspective is that: "The government which governs best, governs thoughtfully."[2]

"Governing thoughtfully" means, among other things, understanding how our economy works. We live in a private market economy, and there are some things that, by definition, a private market economy can't do — like providing for basic education or certain kinds of basic research. These are public responsibilities. There are other things that a private market economy does imperfectly — like protecting clean air and water, providing enough capital to certain types of enterprises, and assuring investments for things that have very long-term payoffs, like infrastructure. These too are public responsibilities. That's why we have government: to equalize the distribution of the benefits (and costs) of the economic pie in some cases, and to expand the pie in others.

As the pace of economic change has quickened and the challenge of economic development has become more complex, businesses and state governments have found that they need each other more than they once thought. A recent study by the Federal Reserve Bank of Chicago, for example, found that private profit rates are strongly affected by public capital investments. Indeed, the study estimated that an additional 10 percent increase in public capital investment in 1984 would have pushed private rates of return up 27 percent from 9.9 percent to 12.6 percent.[3] In a world of global economic competition, accelerating product cycles, rapid spread of technologies and expansionist foreign industrial strategies, success often can be achieved *only* through joint action.

Given these new realities, states recently have created a remarkable array of economic development policy innovations, often with the direct participation of businesses. They have created university and business R&D partnerships, established new business incubators, chartered public venture capital funds, streamlined tax and regulatory programs and provided comprehensive international trade assistance services, among other things. And, having recognized that a skilled workforce is the key to competitiveness, they have upgraded investments in public elementary, secondary and higher education, as well as in a wide range of adult skill enhancement initiatives, from basic literacy to problem-solving, dependability and other personal skills. Finally, they have acted to bring those left behind by changes in our economy back into the mainstream through a variety of programs ranging from business development in distressed communities to self-employment programs for the disadvantaged.

These emerging policies and programs are linked by common themes:

- They are *market perfecting*, recognizing both the power and effectiveness of private markets as well as their limitations, and are designed to remedy market imperfections that keep economic opportunities from expanding and becoming widely-shared.

- They are *investment-oriented*, assuring that resources are invested now so that the foundations of future growth are well established.

- They are *people-centered*, based on an awareness that the central dynamic in a changing economy is people with ideas about how to do something better.

- They are shaped by *public-private cooperation*, by leaders who recognize that we live in one economy, part private, part public.

- They *cross political lines*, and are being pursued equally by Republican and Democratic, liberal and conservative, state and local policymakers.

The Policy Index is designed to capture these innovations. They fall into two broad categories: *development preconditions* and *strategic development initiatives*. The first group includes those responsibilities of government that strengthen the basic foundation for economic activity: improving governance and regulation, creating an equitable and efficient tax code, investing in education and infrastructure and quality of life. The second group includes those cutting-edge strategies — many in partnership with private industry — that help states, and the businesses in them, compete in today's economy: mobilizing capital, promoting new enterprises and strengthening existing firms, and investing in disadvantaged individuals and communities.

The number and variety of these initiatives has risen sharply, even in just the last year. The decision to include individual state initiatives in any of these categories was guided by several key questions. Can the initiative have significant impact on the state's economy? Is the initiative targeted at an important barrier or opportunity for growth? Given the limits of state resources, and the need for partnerships with private actors, is the initiative likely to leverage significant private investment? Will it enhance the equitable distribution of economic opportunity? Does it empower communities and people to improve their own economic conditions? Is it politically pragmatic and administratively feasible?

In grading this year's Policy Index, we weighted each subindex equally. This is not to suggest that each subindex is equally important. The fact is we have no way of determining systematically either the differences across policy areas or the importance of a given initiative to individual states. Moreover, what is or is not important is partly a matter of judgment. What we measure here is *level* of effort, not necessarily *quality* or the *effect* of effort.

What's Different This Year

Significant changes have been made both to how the Index is structured and how information for it was collected. This year, we augmented research from secondary sources by conducting our own detailed survey of every state. We were gratified that all but a handful of states took the time not only to complete the survey, but to forward the documentationwe requested to verify their claims. As a consequence of this survey, we feel significantly more confident of the accuracy of the results in the Policy Index this year than last. Still, some states did not respond and others provided no documentation, so complete coverage has yet to be attained.

In the Index itself, the total number of variables has been increased, several subindexes were changed, some weak or dated measures have been dropped, and a number of new measures have been substituted or added, including several designed to provide a clearer picture of rural issues.

In the Improving Governance and Regulation subindex, we dropped the *Improving Government Foresight* measure because the indicator — whether states participated in the State Scanning Network — was too narrow and no better comprehensive alternative existed. We also dropped *Conducting Strategic Audits* because the source was old and had not changed. This year, we do not count the existence of a *Development Cabinet* because virtually every state now claims to have instituted one, and there is no objective way to assess how effectively they operate.

We developed an Investing In Education subindex this year from last year's Investing in Human Resources subindex. We moved two measures that were not education-related to another subindex. Then, we created the two composite measures *Support for Education* and *Reform of Education*, using some of the measures from last year's Human Resources subindex that were judged still current, several education-related measures that were in other Indexes last year, and several new measures added this year.

We also created a combined Infrastructure and Amenities Policy subindex this year that includes several new indicators, including *State Superfunds*, *Air Permit and Emissions Fees*, *Community Right-to-Know*, *Farmland Protection*, *Assuring Affordable Housing*, and *Access to Public Health Assistance*. Incorporated in this subindex from last year were *Public Capital Budgeting*, and *State Arts Agency Appropriations*.

In the Mobilizing Capital subindex, we gathered a number of separate measures into composites. Of the indicators in these composites, only a few changed from last year. We added *Investment Networks* and *Export Finance* to *Loan Guarantees* under a composite measure on *Improving Information and Reducing Risk*.

In a similar manner, we created a Promoting New Enterprises and Strengthening Existing Businesses subindex by incorporating several measures from last year's Technology and Business Development subindex, including *Research and Development Centers*, *Small Business Assistance Centers*, and *Small Business Incubators*. The *Labor-Management Assistance* measure and the *Employee Ownership and Assistance Programs* measures were moved from other subindexes. And we added several new measures, including *Research and Development Challenge Grants*, and *Export Assistance*.

In the Investing in Disadvantaged Individuals and Communities subindex, the *Transfer Payment Investment* measure was strengthened by the results of a new national survey. In addition, we dropped *Creating Minority Enterprises* and *DOL Project Participation* because the data we used last year were too fragmentary to be significant.

Finally, we added an Agricultural Development subindex incorporating an Agricultural Finance composite measure (composed of *Linked Deposit Loans*, *Direct Low Interest Loans*, and *Agricultural Industrial Development Bonds*) and a *Rural and Agricultural Diversification* composite. But, as noted later in this chapter, we did not include these data in the overall Policy Index calculations, because they would bias the results to the disadvantage of non-agricultural and already diversified agricultural states.

While these changes make comparisons with last year's results difficult, they substantially improve the Index as a whole.

Subindex One: Improving Governance and Regulation

If state governments are to be full partners in the development process, the quality of public sector analysis, decision-making and management must be as good as the private sector's.

As states wrestle with complex economic challenges from functional illiteracy to plant closings, from youth unemployment to the development of new international markets, governance that is more efficient, more farsighted and more strategic in approach becomes increasingly important. Indeed, better governance has been part of the success formula for many states that have recently shown impressive economic gains. Among the numerous steps states have taken to improve governance, this subindex examines two of the most important: streamlining the permitting process and increasing legislative oversight and audit capabilities. Other important steps include creating a process for collecting and analyzing economic information, designing effective public strategies, and coordinating multi-agency responses, but we have concluded that no consistent indicators exist to measure such state efforts.

Streamlined Permitting

State regulation is an economic fact of life. Regulations exist to protect the health, safety and welfare of a state's residents from flaws in the normal operation of the private market economy and from the occasional abuses by individuals operating in that economy.

Increasingly, and particularly as the overall quality of life in a state becomes a more and more important factor in business location decisions, businesspeople are concerned less about the *fact* of regulation than about the *administration* of it. Regulatory reform — not to be confused with regulatory "relief" — has become a significant factor in improving the environment for economic growth. States have undertaken regulatory reviews, established "one-stop" permitting offices, streamlined permitting applications and related paperwork, guaranteed decision timetables and even created ombudsman's offices to handle questions and complaints. The objectives of these reforms are to make clear the state's concerns and assure businesses a fair and timely process for reviewing their proposals, in the process cementing the relationship between the two key players in the development process. As a proxy for determining the extent to which regulations have been streamlined, we measure whether a "one-stop" business development permitting system has been installed.

Legislative Oversight and Audit

Perhaps the most positive effect of the responsibility shift for many economic policymaking responsibilities from the federal government to the states is the rapid increase in the professional analytic capabilities of state legislatures. We measure whether states have established a legislative audit function, by which legislative staff monitor the performance of agencies carrying out legislatively-mandated programs to assure that programs stay on track, are cost-effective and remain relevant. In general, states whose legislatures have developed such analytic staffs with defined audit responsibilities are more aware of how effective existing investments in economic development are and, as a consequence, more sensitive to how state actions affect the business community, and quicker off the starting blocks with new initiatives when a need is identified.

Subindex Two: Creating a Stable and Equitable Tax and Fiscal Environment

Recent research has shown that despite the tendency of state and local governments to use tax abatements and tax incentives to entice out-of-state businesses to relocate, taxation has relatively little effect on business location decisions. Other factors, such as proximity to markets or quality of life for employees are more important to employers and generally overwhelm whatever advantages may be created by tax differentials.[4] What's more, since more than three-quarters of all new jobs come from in-state businesses, such abatements and incentives simply increase the tax burden on the very businesses that have the most to do with a state's future. Still, this does not mean that tax and fiscal environment of the state does not affect the economic environment in the state.

In this subindex, we examine three key aspects of the issue: fiscal stability and balance (the use of an appropriate range of tax vehicles to establish a stable revenue base and support a consistent level of public investment); tax fairness (fair treatment of those who carry the tax burden); and fiscal equalization (ensuring that each community has relatively equal ability to deliver essential services).

Fiscal Stability and Balanced Revenue Sources

Although it is impossible to define what the "best" tax and fiscal environment would be for any state, there are several widely-recognized characteristics we *can* identify.[5] The first characteristic is that major taxes are balanced so that no individual tax is unduly burdensome and that all taxes, taken together, help insulate revenues from recession and economic shocks, to the extent possible. The second is that the tax system, when combined with a fiscal system in which prudent controls guard against wide swings in tax levels and the quality of services, permits the state to provide businesses the assurances they need to make long-term investments.

Tax Fairness

It is occasionally argued that an equitably distributed tax system is antithetical to a good business climate — especially to a state's ability to lure branch plants and other footloose facilities by using special tax breaks. But the credibility of state and local governments depends upon the conviction that citizens and businesses ***already operating in the state*** hold: that the taxes they pay are fair, that their tax dollars are being wisely invested and are generating needed public services, and that no one is benefiting at their expense. For businesses in particular, a fair tax system assures that "the playing field is level."

Fiscal Equalization

State policies to promote equal fiscal capacity among local governments are essential to a sound business climate. Such policies assure that all communities have an equal ability to provide an adequate level and quality of public services to firms and individuals. Furthermore, they reduce the potential for large property tax differentials between nearby communities to influence residential and firm location decisions. More importantly, equalizing state fiscal aid can alleviate financial stress and high tax burdens in urban areas where taxable wealth has dropped and public service needs have risen.

See *Appendix D* for a full discussion of the these tax and fiscal measures.

Subindex Three: Investing In Education

As the decade draws to a close and we begin to look toward the 1990s, perhaps the clearest lesson of the 1980s is the direct connection between the quality of our workforce and the health of our economy. In the wake of major studies criticizing the quality of our schools, states have rededicated their commitment to education as the keystone of their economic development strategies.[6]

This year, we combine a range of education initiatives into two composite measures: *Support for Education* and *Reform of Education*.

Support for Education

This composite measures the financial commitment states make to education. It includes:

- *Pupil Spending, K-12:* direct spending per pupil at the elementary and secondary level, adjusted for differences in personal income and the cost of living among states.

- *Pupil Spending, Higher Education:* direct spending at the post-secondary level at public colleges and universities, adjusted for differences in personal income and the cost of living among states.

- *Pupil/Teacher Ratio*

- *Changes in Teacher Salary:* the average change in elementary and secondary teachers' salaries, as a rough indicator of commitment to quality in education.

We note that while this composite permits a direct comparison among states, it does not indicate how effectively these investments are being used.

Reform of Education

To address how *well* we educate tomorrow's workforce, not simply how much we spend on them, this composite measure examines:

- *High School Science and Math Graduation Requirements*

- *Computer Literacy:* computer-related high school graduation requirements.

- *Remedial and Compensatory Programs:* state commitment to remedial and compensatory education.

- *Teacher Mentors:* teacher mentoring programs.

- *Teacher Incentives:* statewide incentive programs for recruiting and retaining teachers.

These initiatives, while not a comprehensive list, reflect the general areas where improvements are taking place and are among the few that can be measured across all states.

Subindex Four: Investing in Infrastructure and Amenities

The concept of "amenities" has taken on a decidedly economic meaning as the structure of our economy has changed. In more and more companies, employees are the most valuable resource, and attracting and retaining them can be key to a business's long-term success. Consequently, business and economic development officials have taken a new and much broader interest in what determines the amenity level in a state.

To begin to measure the extent to which each state is working to address this concern as well as related public infrastructure issues, we examine: whether adequate public capital budgeting practices exist through which major infrastructure improvements are built and maintained, whether the state is taking steps to safeguard the environment, whether it is acting to protect valuable farmland, whether it has state-financed programs to make housing more affordable to all, whether access to public health assistance is assured, and the extent to which cultural enrichment is supported through state arts agencies.

Public Capital Budgeting

While the existence of formal capital budgeting practices does not insure against the age-old habit of cutting repair and maintenance investments every time there is a budget crunch, it does suggest a degree of seriousness about the challenge of maintaining the roads, bridges, water and wastewater systems, solid waste sites, dams and prisons that form a part of the quality of life picture. In this composite measure, we examine:

- *Facility Inventory:* whether states maintain a central unified inventory of public facilities.

- *Needs Assessments:* whether states provide regular assessments of facility conditions and investment needs.

- *Capital Plans:* whether states develop long-range capital plans to guide annual capital budget requests.

Environmental Policy

As a first step toward developing a comprehensive environmental policy measure, we developed a composite incorporating three indicators:

- *Community "Right-to-Know":* A first step in assuring a safe and healthy environment is knowing the extent to which harmful materials exist in it. This measure identifies states that have passed legislation that guarantees workers and residents the right to know the identity and potential dangers of hazardous materials used or stored in their workplace or community.

- *State Superfunds:* In a related matter, some states have created their own "Superfunds" to identify and clean up old hazardous and toxic waste dumps. We measure not just whether such enacting legislation has been passed, but whether it has been funded.

- *Air Permit and Emissions Fees:* To strengthen their air pollution control programs and augment inadequate public abatement funds, several states have expanded their permitting programs to establish emissions fees. We count only those states which have both enacted such programs *and* collected fees.

Farmland Protection

In much of our country, towns were first founded in areas where the farmland was the best. Where those towns have prospered and become cities, their original main asset — prime farmland — is under heavy urban and suburban development pressure. The problem is important both because we need to assure a sustainable supply of reasonably-priced food and because farmland has important open space value — a respite from concrete, steel and glass. One of several new rural economic measures in the year's *Report Card*, this measure is a composite of the extent to which states have enacted any of several farmland protection initiatives:

- *Right-to-Farm Laws:* laws that protect farmers and ranchers from certain legal actions against normally accepted farm practices.

- *Development Rights — Purchase:* states that may purchase the development rights of farmland by paying the owner the difference between the market value and farm-use value of the land.

- *Development Rights — Transfer:* rights that allow qualifying developers to increase development density in designated receiving areas, if they purchase development rights from farmers whose property is in other designated sending areas to protect their use of land for farming and keep them from being forced off their land.

- *Agriculture District Ordinances:* allow farmers to organize land into legally recognized geographic areas restricted to agricultural use.

Preferential/differential taxation is not included here because it now exists in all states.

Assuring Affordable Housing

Any businessperson who has tried to recruit a new employee knows that the availability of affordable housing is a pivotal quality of life issue. Any public official who has tried to find shelter for a disadvantaged family has learned the same lesson. The cost of housing is driven, in part, by how "hot" the economy is in a given area. But access to housing can also be influenced by public policy in several ways. This composite measure examines whether states have taken such actions — actions that go beyond the more conventional step of offering federally-subsidized mortgage revenue bonds.

- *Housing Construction:* by providing financial assistance for construction.

- *Housing Rehabilitation:* by providing financial assistance for rehabilitation.

- *Tenant Support:* by financially assisting tenants.

- *Home Ownership:* by providing assistance to make home ownership more affordable.

- *Pre-Development Costs:* by absorbing the pre-development costs of planning and building low- and moderate-income housing.

- *Housing Trust Funds:* by establishing a trust fund to finance the construction of affordable housing.

Access to Public Health Assistance

An essential indicator of quality of life for the more than one-quarter of America's non-elderly population without private health coverage is whether public health care is available and sufficient to meet basic needs. Using the results of a recent nationwide analysis, this measure examines state Medicaid eligibility standards, service coverage, service availability, quality and reimbursement methods.

State Arts Agency Appropriations

A state's commitment to cultural enrichment — its appropriations for arts agencies and organizations — can have a significant effect on whether its residents feel "this is a nice place to live" and whether its businesspeople feel "this is a good place to build a business." Pride of place is reflected in public art, architectural preservation, downtown revitalization, support for state and community symphony, ballet, and related arts organizations, among others things, and is transmitted well beyond state boundaries. Obviously, only a small proportion of the funds for such activities comes from state government, but states can set an example for the rest of the community — and many do.

Subindex Five: Mobilizing Capital

Financial capital is the "grease" that keeps economic machinery turning smoothly. When capital does not flow to its most productive uses, for whatever reason, the machinery slows. Jobs are not created, new technologies are not developed and commercialized, the higher economic returns delivered by new or expanding enterprises do not occur, and the economic health of the state suffers.

Existing financial institutions — commercial banks, insurance companies, venture capital firms, investment banks and others — do a pretty good job of assuring the availability of capital for large, established corporations. But research indicates that these institutions often fail to provide appropriate kinds and amounts of capital to the very enterprises that create the majority of new jobs and economic energy in today's economy: new and young businesses, rapidly expanding businesses, businesses in new economic sectors, businesses located in depressed communities, minority- and women-owned businesses and businesses with nontraditional management structures — cooperatives, worker-owned firms, non-profits, and community development corporations.[7]

The reasons capital is often unavailable for such enterprises are many. An aversion to risk — even when the expected return may be high — renders some capital sources unavailable. The difficulty and cost of acquiring information on new, young or small firms discourages such investments. The cost of putting together deals is about the same regardless of a business's size; thus it costs less to put together one or two big deals than many smaller ones. Political, geographic, racial and sex biases still exist. And regulatory and taxation policies — such as "legal list" limitations, barriers to risk pooling, usury ceilings, and the like — may simply prohibit existing institutions from making capital available to some enterprises, regardless of their soundness or future prospects.

But sheer availability is not the only problem. The kinds of capital — long-term debt, short-term debt, subordinated debt, equity, near-equity and others — are also often inadequate. A firm needs different kinds of capital at each stage of its life: research, product development, start-up, expansion, and so forth. If capital is generally available, but not in the right form, it might just as well not be available at all.

To overcome limitations on economic development caused by capital market failures, state governments have developed a variety of financial innovations. This subindex gathers these innovations into three categories: changing state financial regulations to redirect the investments of private institutions, creating new public or publicly-chartered institutions to fill gaps in the private financial marketplace, and developing new business services that increase information or reduce risk.

Reforming Finance Regulations

Four of the five trillion dollars in the U.S. economy are controlled by financial institutions that are licensed and regulated by government — banks, savings and loans, and insurance companies, among others. Any policy which makes even a small change in the investment practices of such institutions will have a dramatic effect on the availability of capital to businesses in that economy. In this category, we examine three initiatives: intrastate branch banking, pension fund investments and state community reinvestment acts.

- *Intrastate Branch Banking:* Regulations that prevent the entry of new banks into communities can limit competition and the kind of aggressive lending practices that competition stimulates. Many states have begun to lift both intrastate and interstate banking restrictions in order to address this problem. We examine here only statewide branch banking.

- *Pension Fund Investment:* State pension funds are often legally restricted from investing in the very communities where the people who contribute to and benefit from the fund live. In some cases, statutory lists specify where funds can be invested. To free some of these resources for local investment, many states have eliminated the lists altogether, substituting the "prudent investor" language of the federal Employee Retirement Income Security Act, which governs private pension fund investment practices. Under this language, some fund assets can be invested in qualifying in-state businesses, while still protecting the integrity of the fund. Other states have modified their lists to include some investments in in-state corporate equities, small businesses, SBA loans, limited partnerships with venture capitalists, and in affordable housing. This measure indicates whether in-state public pension funds are investing in venture capital or investing as venture capital.

- *Community Reinvestment Act:* Finally, some states have enacted their own versions of the federal Community Reinvestment Act of 1977, to require banks to demonstrate that they have taken steps to meet the credit needs of the businesses in the communities in which they are chartered. We identify which states make such requirements.

Creating New Institutions

When all else fails, some states have created public or publicly-chartered private institutions to channel capital to businesses or communities that private financial institutions either cannot or will not serve. Some of these institutions are capitalized by state appropriations, some by private investors who may be offered some special incentive (like a tax cut or credit), and some by leveraging both federal and private funds. The best of these institutions have: supplemented rather than substituted for private markets, targeting their limited funds to clearly-identified market gaps; increased the access to capital for businesses, rather than subsidizing its cost; provided the kind of capital (e.g., equity, long-term debt) to new, young, or small businesses that private institutions have been unable to provide; leveraged a great deal of private or federal money with a very small amount of state money; and demonstrated the economic viability of enterprises that private markets had judged too risky, eventually shifting these businesses to private institutions when their credit-worthiness was proven. In this category we examine the four principal institutions currently in use.

- *Quasi-Public Venture Capital Funds:* These are publicly-chartered and capitalized corporations, but accountable to their founding statute and their own board of directors. Most public venture capital corporations fit this definition.

- *Business Development Corporations:* BDCs are statewide, publicly-chartered, privately-managed corporations, usually capitalized by commercial banks, savings banks or insurance companies, which advance loans to riskier ventures.

- *Loan Funds:* Usually financed largely through tax revenues and run by government agencies, these are debt intermediaries designed to meet a specific development need.

- *Business and Industrial Development Corporations*: BIDCOs are state-regulated and -chartered, privately managed institutions designed to meet small firms' needs for moderate- to high-risk debt and equity capital. They differ from BDCs principally in that more than one can be chartered to operate in a state.

Improving Information and Reducing Risk

To overcome imperfections in private markets that keep capital from reaching new, young or small businesses that the state considers important to long-term development, states have undertaken to gather and distribute financial data on these businesses and, to reduce the perceived risk, guarantee private investments in them. We examine the three principal initiatives in use.

- *Loan Guarantees:* When their economic development objectives are frustrated by risk-aversion in private financial markets, states have established loan guarantees, credit insurance, and secondary markets to reduce the exposure of private investors to loss. This measure examines nonagricultural loan guarantees.

- *Investment Networks:* Besides the venture capital industry, there is a large but informal supply of private investors interested in providing equity seed capital to early-stage or higher-than-average-risk enterprises. A number of states now have created computerized networks to match such investors with business investment opportunities.

- *Export Financing:* In a number of states, conventional financial institutions do not offer the full range of services needed by businesses that seek export sales. This measure identifies states that have created programs to help repackage federal resources or assure direct financing through guarantees or interest subsidies.

Subindex Six: Promoting New Enterprises and Strengthening Existing Businesses

State development officials have recognized the importance of technological innovation, entrepreneurship and effective business management to the future growth of their economies and have taken a variety of steps to create the right conditions for new businesses to be born and existing businesses to grow. These efforts have been strongest where states have taken the time to identify their own competitive advantages and establish programs to strengthen and capitalize on them. In all, we look at eight such initiatives.

Research and Development Challenge Grants

A number of states have become financial partners with fledgling entrepreneurs and struggling inventors by providing research and development funds on a matching basis for promising projects. We identify which states have created such funds.

Research and Development Centers

The link between first-class university research and the creation of "cutting edge" businesses has become clear to many states.[8] They have established or helped finance the creation of advanced technology centers — like Pennsylvania's Ben Franklin Partnership or Ohio's Thomas Alva Edison Program — to foster new technologies and generate spin-off businesses. Often the funds appropriated to build such centers, support research, endow faculty chairs or support graduate student fellowships require matching private sector investments.

Small Business Assistance Centers

For would-be entrepreneurs and for small businesses that want to expand, frequently the biggest stumbling block is simply not knowing where to start. To remedy this problem many states have established small business assistance centers and business extension services to provide business creation and management assistance. As evidence continues to grow that most of the new jobs in a state's economy will be created by businesses and entrepreneurs already living in the state, the value and importance of these programs will grow as well.

Small Business Incubators

The idea behind incubator facilities is that the likelihood of success for new businesses can be increased by helping them overcome common barriers: under-developed management skills; lack of a business support network; a shortage of accessible, appropriately sized, affordable industrial and commercial space; and the unavailability of risk capital. States may build, donate or underwrite the development of incubator facilities, absorb some operating costs, and even offer seed capital and other forms of start-up financing to businesses facing these barriers.

Technology Transfer

Several states have established new technology transfer programs designed to identify promising new university research and move it toward commercialization, solve technology-related problems of corporate clients, and help existing industries become more competitive through retooling.

Employee Ownership Assistance

Employee ownership and operation is an increasingly attractive tool for preserving jobs in viable businesses that face the threat of closing due to the owner's retirement, a distant parent corporation decision unrelated to the viability of the plant, or a similar circumstance. Besides saving jobs, employee ownership can actually improve productivity, provide workers with income beyond their wages, and enhance local control over future economic development. States have established employee ownership assistance programs to smooth the transition — through technical assistance, ownership and management training programs, loans and loan guarantees and tax incentives, among other features.

Labor-Management Assistance

Increasing labor productivity, overcoming skill shortages, increasing the flexibility and adaptability of worker skills, and strengthening the ability of managers to identify and fully utilize the talents of their employees are crucial to increasing the competitiveness of businesses *and* state economies. Several states have established programs to improve labor-management relationships at the local level. While the range of such programs is broad, the most direct and potentially most effective have been providing seed grants for local labor-management programs and councils, trouble-shooting and providing direct staff assistance, sponsoring conferences and seminars, and acting as a clearinghouse for information. This indicator identifies states which have established labor-management productivity and related quality of worklife programs at the local level.

Export Assistance

In yet another effort to exert greater control over their own economic futures, states have begun to develop sophisticated export marketing programs that go well beyond traditional promotional activities, establishing their own trade offices, or conducting their own overseas advertising programs. They are conducting new activities, including the following:

- *Buyer/Seller Matching:* establishing systems for linking potential overseas product buyers with in-state sellers.

- *Publications:* publishing newsletters and handbooks with an international focus, to help in-state businesses work with foreign partners, or build international markets or ventures.

- *Counseling and Marketing Services:* identifying trade leads for products produced in-state, providing training and one-on-one counseling, among others.

- *Seminars:* holding seminars, conferences, and workshops on international trade opportunities and problems.

Subindex Seven: Investing in Disadvantaged Individuals and Communities

When it comes how the benefits of economic development are distributed, all communities and individuals are not created equal. We saw this phenomenon nationwide as rural economies continued to decline in the face of rapid economic expansion elsewhere in the nation. We see it often in urban neighborhoods abandoned by the businesses that once created them. And we see it in individuals who have been displaced by rapid economic change or who may never have participicted in the economy in the first place.

If the broad purpose of economic development is to provide everyone an opportunity for a better life, and if the attractiveness of a state for new development is determined, in large part, by how capable it is of providing that opportunity, then states that help disadvantaged individuals and communities adjust to and take advantage of changing economic realities are more vital and attractive for future growth than those that do not.

To identify how well states are meeting the needs of disadvantaged individuals and communities, we examine four indicators: the extent to which AFDC payments meet the basic support needs of those receiving them, whether transfer payment and social service programs have been restructured to go beyond maintenance to invest in economic independence, whether community-based development programs to create new growth are being supported, and whether rapid response teams have been established to address the needs of communities threatened by plant closings.

AFDC Benefit Adequacy

Transfer payments — welfare, unemployment compensation, social security and Medicaid, for example — are typically viewed as drags on the economy. In fact, however, they often stabilize economies and individuals in distress by maintaining purchasing power, conserving human capital, maintaining basic living standards and — particularly in rapidly changing economies — reducing resistance to productive change.

The primary support program for the non-elderly poor in the nation, Aid To Families With Dependent Children (AFDC) is jointly administered by federal and state government. Benefit levels are determined by the state and offer an indication of the state's willingness to ensure a decent standard of living for its least advantaged citizens. To gauge the adequacy of benefits fairly from state to state, we measure AFDC benefits as a percent of per capita income.

Transfer Payment Investment

Beyond stabilizing incomes and economies, transfer payments can be even more effective contributors to economic development if they are used to encourage and support training, education, reemployment and self-employment.

States that develop transfer payment *investment* programs can begin to reduce the fiscal cost of dependency in a state economy, enlarge and improve the workforce, reduce social tension and create the spirit of enterprise and hope which is the backbone of a healthy economy.[9] In this composite measure we examine a variety of efforts to reform the basic welfare system so as to promote economic independence, including: assessing the comprehensiveness and stability of funding for welfare-to-work programs; the existence of state-funded initiatives beyond those mandated by federal law; state child care, medical, and transportation assistance to meet the needs of reemployed welfare clients; and state use of federal job training monies for AFDC recipients. (See *Appendix E* for a fuller explanation and reported data related to this *Transfer Payment Investment* measure.)

Community-Based Development

Community-based development organizations can play a key role in delivering a wide range of services critical to the revitalization of economically-distressed communities: loan packaging, fund-raising, development planning, providing technical assistance to new and small businesses, developing and managing incubator facilities, sponsoring real estate development projects, developing social service enterprises, and investing directly in small firms, among other activities. We measure here the extent to which states support such organizations through grants, loans, technical assistance and equity investments.

Rapid Response Teams

When a major plant is closing and employee ownership is not an option, communities face rapidly escalating social service demands in the face of a sharp drop in tax revenue from the closing plant. State-sponsored rapid response teams can lessen the toll on workers, their families, other businesses and the community as a whole. Many such teams, funded by the federal Job Training Partnership Act and other resources, develop strategies for providing coordinated assistance, inventory existing public and private financial sources and expertise, design new training, business retention, and social service programs, and evaluate the results. The ultimate objective of such teams is to smooth, to the extent possible, the inevitable bumps encountered by people and communities in economies undergoing rapid change. States that have programs in place are more capable of adjusting to these changes than those that do not, and thus are more attractive prospects for future economic development.

Subindex Eight: Agricultural Development

This year, we examined, but did not calculate into the Policy Index totals, two indicators of state commitment to broadly based agricultural development: agricultural diversification programs and special agricultural finance programs. We do not factor these measures into the nationwide totals because they have relevance only to major farm states — and even at that, primarily only to grain-growing states. Still, in these states the existence or absence of such programs is a clear indication of the degree to which state government is involved in solving these issues. Moreover, the results suggest that even states with quite similar agricultural economies approach their farm problems differently.

Agricultural Finance

The unique financing needs of agricultural enterprises, underscored by the recent farm credit crisis, have led many farm states to establish financing mechanisms targeted directly to farmers and farm-related businesses. As part of our effort this year to look at the needs of rural areas, we indicate whether states have established any of three such mechanisms.

- *Linked Deposit Loans:* In these programs states purchase certificates of deposits that pay below-market interest rates from banks that agree, in turn, to make loans to farmers (and in some cases farm-related enterprises) and charge below-market interest.

- *Direct Low Interest Loans:* Many farm states maintain loan programs from revolving or general funds to help finance beginning farmers, farmers' markets, cooperatives, soil and water conservation projects and debt restructuring.

- *Agricultural Industrial Development Bonds:* A number of states have sold "Aggie Bonds" to provide loans for land purchases by first-time farmers; to finance machinery, equipment, and building purchases; and for purchasing farm mortgages held by in-state bankers, among other uses.

Rural and Agricultural Diversification

Just as they have moved to diversify their manufacturing sectors, many states have also begun to diversify their agricultural sectors, in order to boost farm profits, spawn farm-related enterprises, stabilize rural community economies, and enhance rural competitiveness. Initiatives include creating new R&D centers, value-added processing programs, new product development programs, and marketing and management assistance.

Findings

This year the Policy Index covers a wider variety and larger number of state economic development initiatives. Nevertheless, as we noted last year, the pace of state policy innovation is rapid, state administrations change frequently and, in any given state, all of the policies in place today may not be reflected in this Index.

In a sense, however, perfect accuracy is unnecessary here. What we are trying to gauge is relative level of effort: is a state doing most of the things within its power to increase the competitiveness and attractiveness of its economy? Some of the things? Very few of them?

What if a state does all the things we list in the Policy Index — will it be successful? Will its economy boom? We make no such claim. Government is but one player in any economy, and not the most important one at that. Its resources are small and its role is limited. But the evidence is unequivocal that, however small, this role is also crucial:

State governments can, by their own actions, create the environment in which businesses can grow, economies can expand and opportunity can be widely shared. Just as clearly, by their inaction, states can render their economies lifeless and uncompetitive.

As expected, among the states earning honor grades of *A*'s or *B*'s in the Policy Index are many of the Northeast states that also lead the nation in economic performance — Connecticut, Maine, Massachusetts, Maryland, New Jersey and Vermont. These states have made a strong commitment to public investments and public-private partnerships that will strengthen their capacity to generate future growth and position them to remain leaders in the economic race for the future.

But perhaps the most interesting finding is that a number of industrial Midwest and New South states with troubled economies in recent years are also among the states earning *A*'s and *B*'s in the Policy Index. These states include Indiana, Michigan, Ohio, Arkansas, South Carolina and West Virginia. They symbolize that famous adage: "When the going gets tough, the tough get going."

More than anything else, the leaders in the Policy Index are the embodiment of the old rule: "Necessity is the mother of invention." Take the case of Massachusetts. A wholesale restructuring of its economy began in the late 1960s and early 1970s. Faced with deep economic distress, chronic unemployment and decaying factory towns, policymakers had little choice but to innovate. None of the old formulas were working: they couldn't keep factories from leaving and they couldn't lure replacements. They had to rebuild from within, strengthening their assets and converting their liabilities. It took the better part of a decade — a decade of investment, innovation and partnership-building. There is no "miracle" to the turn-around in Massachusetts, just hard work and leadership.

In the meantime, industrial Midwest states began to feel the strains of the restructuring of the American manufacturing economy. Faced with the same stark challenges and the same limited choices, these states have arrived at the same conclusion as Massachusetts: build from within, invest in yourself. Having learned from Massachusetts' successes and failures, these states have created an extraordinary array of imaginative new programs and partnerships, reshaping our image of what government can and cannot do in the process.

And the same theme is now being shared by a few Southern states struggling to overcome legacies of their own — chronic underinvestment, poverty and "smokestack chasing" economic development policies that no longer produce the results they once did. The South was where the factories of Massachusetts fled in the 1960s and 1970s, lured by cheap labor, tax abatements and other generous incentives. Then, when they found even cheaper labor sources overseas, these businesses abandoned the South as well. Today, after several years of investing in education, home-grown business development, infrastructure and capital markets, states like South Carolina and Arkansas are gaining ground fast. Unfortunately, too many of their neighbors have yet to see the light.

There is another pattern in the Policy Index findings as well: a number of states whose economies are booming have weak foundations and are doing poorly in the Policy Index. These states are "coasting." Their current success is largely due to "being in the right place at the right time" and their future prospects for powering their own growth do not seem bright. Most prominent examples of such coasting states are Rhode Island and New Hampshire.

Finally, as with last year, among the states with the farthest to go in economic development policy initiatives tend to be the thinly-populated Plains and Mountain states — including South Dakota, North Dakota, Idaho, Nebraska, and Wyoming. Heavily dependent upon energy and other commodity prices, these states have been content in the past to take whatever the cycles give them: to "boom" with the good times and go "bust" in the bad times. Joining these Plains and Mountain states at the bottom of the Policy Index are several Southern states slow to take charge of their own futures and aggressively work to build their economies — most notably, Alabama, Tennessee, Georgia, Louisiana and Oklahoma.

And in the end, that is the message of the Policy Index: that states can gain a measure of control over their own economic destinies. Resources may be limited, but imagination is not.

At the subindex level, there are several interesting stories underway. For example, it seems clear that the challenge of Improving Governance has been taken up by a majority of the states. Only a handful — New Hampshire, Nevada, North Dakota and Louisiana — have taken neither of the steps measured in this subindex.

Improvements in education stand out as first steps toward overall economic development policy reforms. More than half of the leaders in education reform are also leaders in broad-based policy innovation. The reverse is also true: states at the bottom of the Education subindex tend to be at the bottom of the entire Policy Index.

The Infrastructure and Amenity Policies subindex documents the next level of investments made by our policy leaders. Again, the leaders are familiar — Maryland, California, Massachusetts, New Jersey, New York, Michigan and Ohio, among others. The familiar trailing states are predominantly Southern and Western. A surprise near the bottom of this list is booming Georgia, casting a shadow over how long that state can sustain the growth its urban areas are currently experiencing.

The Mobilizing Capital subindex presents a somewhat surprising finding: New York and Massachusetts, for example, both with strong traditional capital markets, nevertheless found it necessary to fill capital market gaps through state action — underscoring the fact that it is not how *much* capital you have in a state but how *accessible* it is that matters in creating economic growth. This suggests that states with a reservoir of capital market knowledge and experience may engage more actively in capital policies than those states with a more acute need that lack such expertise.

In the New Enterprise Development subindex it is not the leaders, but those just behind them, that present the most interesting story. We are accustomed by now to seeing Michigan, Ohio, and Pennsylvania in the vanguard of enterprise development, building on the earlier accomplishments of Massachusetts. But there are newcomers to this list, including Arkansas, Iowa, and Kansas, among others — a kind of "third wave" of innovators worth watching in coming years. Somewhat dispiriting are those at the bottom of the list: the thinly-populated states that continue to depend on energy and other commodity industries, and another, smaller group of states which depend upon the economic energy of a neighbor to meet their needs.

Finally, the states leading the Investing in Disadvantaged Individuals and Communities subindex are, perhaps not surprisingly, states that have made a special effort to bring those left behind by economic change back into the mainstream: Massachusetts, Wisconsin, Ohio, California, Minnesota, Connecticut and Michigan, among others. Many are heavy industry states hard-hit by both structural change and the last recession whose displaced worker, plant closing, and employment problems have been particularly acute. At the other extreme of this subindex are states whose problems have tended to be both chronic and acute — Southern and Western states like Louisiana, Georgia, Missouri, Nevada, Wyoming and New Mexico.

Policy Data

	GOV. & REG. IMPROVMT.		CREATING A STABLE AND EQUITABLE TAX AND FISCAL ENVIRONMENT								INVESTING IN			
			Stability/ Balance		Fairness		Equalization		FINAL		Support for Education			
											Pupil $, K-12		Pupil $, Higher	
	Permits	Audits	Score	Rank	Score	Rank	Score	Rank	SCORE	RANK	%	Rank	%	Rank
Alabama	■		96.14	26	8.57	50	67.86	7	172.57	40	25.71	33	38	9
Alaska		■	67.84	45	34.00	33	87.66	1	189.50	29	46.22	1	95	1
Arizona		■	108.05	14	47.57	16	56.08	26	211.70	12	22.37	47	24	26
Arkansas	■	■	91.28	34	25.97	42	54.40	28	171.65	44	25.46	35	44	5
California	■	■	133.72	2	71.00	1	64.56	14	269.28	1	22.63	44	23	31
Colorado	■	■	108.02	15	55.68	8	42.22	41	205.92	16	27.18	29	22	36
Connecticut	■		94.47	29	45.00	20	39.16	43	178.63	33	27.25	28	16	46
Delaware	■		91.91	32	39.48	26	76.76	5	208.15	14	31.89	9	24	26
Florida		■	90.41	36	35.00	32	58.89	21	184.30	30	27.29	27	26	24
Georgia		■	123.98	6	17.77	48	56.51	25	198.26	24	24.06	40	32	16
Hawaii		■	91.38	33	23.57	45	77.18	3	152.13	28	27.54	24	39	8
Idaho		■	104.50	20	38.68	27	60.28	20	203.46	18	22.70	43	33	15
Illinois	■	■	89.12	38	27.77	40	46.80	34	163.69	46	24.63	39	19	43
Indiana	■	■	128.42	4	23.77	44	62.72	18	214.91	9	25.37	36	24	26
Iowa	■	■	94.51	28	49.77	12	55.15	27	199.43	22	27.41	26	22	36
Kansas	■	■	90.83	35	35.77	30	46.27	37	172.87	38	28.52	16	24	26
Kentucky	■	■	106.48	17	24.37	43	66.88	10	197.73	25	26.33	32	35	11
Louisiana			89.97	37	46.77	17	63.48	17	200.22	21	27.70	22	34	14
Maine	■	■	134.83	1	46.17	18	47.38	33	228.38	5	28.40	17	21	39
Maryland		■	133.22	3	56.78	7	42.14	42	232.14	4	27.60	23	22	36
Massachusetts		■	120.23	8	39.77	25	67.02	9	227.02	6	28.56	15	13	49
Michigan	■	■	126.78	5	41.77	22	37.91	44	206.46	15	27.98	19	23	31
Minnesota	■	■	114.84	10	68.68	2	64.56	14	248.08	2	28.14	18	28	19
Mississippi	■	■	85.01	39	36.78	29	76.78	4	198.57	23	25.29	37	47	2
Missouri	■	■	106.16	18	32.17	37	42.29	40	180.62	32	23.93	41	19	43
Montana	■	■	53.78	49	48.77	13	31.37	48	133.92	48	36.30	3	31	17
Nebraska		■	100.06	23	48.68	14	25.82	50	174.56	37	23.89	42	21	39
Nevada			60.83	47	40.00	24	71.32	6	172.15	42	20.40	50	27	21
New Hampshire			38.43	50	30.00	39	33.64	47	102.07	50	21.11	49	8	50
New Jersey	■		65.59	46	32.77	36	53.13	30	151.49	47	32.37	7	23	31
New Mexico		■	98.36	24	41.77	22	85.95	2	226.08	7	31.27	10	45	4
New York	■	■	102.27	21	64.88	4	46.72	35	213.87	10	35.90	4	20	41
North Carolina	■	■	109.81	13	20.37	47	66.25	12	196.43	26	29.17	13	35	11
North Dakota			56.10	48	54.68	9	61.40	19	172.18	41	29.17	13	35	11
Ohio	■	■	115.48	9	51.57	11	46.19	38	213.24	11	26.88	30	20	41
Oklahoma		■	82.97	40	31.57	38	56.65	24	171.19	45	22.56	46	27	21
Oregon	■	■	79.87	42	64.37	5	33.88	46	178.12	34	32.81	6	23	31
Pennsylvania	■	■	111.99	12	44.77	21	46.63	36	203.39	19	31.10	11	18	45
Rhode Island		■	101.45	22	52.98	10	49.08	31	203.51	17	33.73	5	14	47
South Carolina	■	■	121.17	7	35.68	31	64.71	13	221.56	8	27.82	20	42	6
South Dakota	■	■	74.45	44	27.00	41	28.19	49	129.64	49	27.82	20	42	6
Tennessee		■	81.44	41	48.00	15	42.31	39	171.75	43	22.63	44	31	17
Texas		■	94.07	30	33.00	35	54.27	29	181.34	31	25.54	34	28	19
Utah	■	■	105.52	19	38.57	28	58.31	22	202.40	20	21.95	48	27	21
Vermont	■		77.61	43	60.68	6	37.63	45	175.92	35	29.61	12	14	47
Virginia	■	■	106.57	16	17.57	49	48.46	32	172.60	39	24.88	38	25	25
Washington	■	■	92.38	31	34.00	33	67.54	8	193.92	27	26.86	31	24	26
West Virginia	■	■	98.26	25	45.77	19	66.81	11	210.84	13	27.53	25	37	10
Wisconsin	■	■	114.62	11	68.37	3	64.46	16	247.45	3	32.28	8	23	31
Wyoming		■	95.06	27	23.00	46	57.55	23	175.61	36	40.97	2	46	3

Please refer to *Policy Index Data Sources* and the *Policy Index* for further detail on individual measures.

EDUCATION

INVESTING IN INFRASTRUCTURE AND AMENITIES

Pupil/Teacher		Salary Changes		Reform of Education					Pub Capital Budgeting			Environmental Policy			Farmland Protection			
Ratio	Rank	%	Rank	H.S. Grad. Require.	Computer Literacy	Compens. Educa.	Teacher Mentors	Teacher Incents.	Facility Inventory	Needs Assess.	Capital Plans	Right-to-Know Laws	Super-Fund Statutes	Emiss. Fees	Right-to-Farm Laws	Dev. Rts. Purchase	Dev. Rts. Transfer	Agri. Dist. Ordins.
20.2	**43**	**−1.89**	**49**					■	■	■	■			■	■			
15.8	12	1.44	46									■	■		■			
19.6	**41**	**8.53**	**7**			■				■	■		■	■	■			
17.5	25	2.31	45	■	■	■	■	■					■	■	■	■	■	
23.1	**49**	**6.87**	**17**			■		■	■	■	■	■	■	■	■		■	■
18.4	33	5.77	24											■	■			
14.0	**1**	**11.01**	**3**	■		■								■	■	■		
16.2	16	11.54	2			■				■	■	■		■	■			
16.6	**19**	**7.11**	**14**	■		■	■	■	■	■	■		■	■	■		■	
18.8	36	6.88	16			■	■								■			
22.6	**48**	**0.21**	**48**			■								■	■			■
20.3	44	2.41	44												■			
17.8	**29**	**4.10**	**32**						■	■	■		■	■	■			■
18.6	34	3.89	36	■		■	■	■			■		■	■	■			
15.3	**9**	**3.67**	**38**									■	■		■			■
15.4	10	3.46	41							■	■		■	■	■			
19.2	**40**	**7.25**	**12**	■		■	■						■	■	■			■
18.6	34	−1.98	50	■	■				■	■	■	■	■	■	■			
14.5	**4**	**8.55**	**6**		■		■	■				■	■	■	■	■	■	
17.5	25	8.70	5	■		■			■	■	■	■	■	■	■	■	■	■
14.9	**5**	**6.77**	**20**			■		■		■	■	■	■	■	■	■		
20.6	46	7.23	13	■		■			■	■	■	■	■		■			
17.1	**23**	**3.58**	**40**			■				■	■		■	■	■			■
18.1	30	5.28	29						■	■					■			
16.5	**17**	**6.80**	**19**			■		■			■	■	■	■	■			
15.9	14	7.63	9									■	■		■			
15.0	**6**	**4.62**	**31**												■			
20.0	42	5.30	28						■	■	■			■				
15.9	**14**	**7.93**	**8**		■					■	■	■	■	■	■	■		
15.0	6	2.56	43	■		■		■	■	■	■	■	■	■	■	■	■	■
18.8	**36**	**6.44**	**21**	■	■				■	■	■		■		■			
15.8	12	4.95	30			■		■	■	■	■		■	■	■			■
18.8	**36**	**5.78**	**22**			■	■					■		■	■			■
18.8	36	5.78	22											■	■			
18.3	**32**	**7.10**	**15**			■			■		■	■	■	■	■			■
16.6	19	0.43	47				■		■	■	■			■	■			
18.2	**31**	**4.00**	**34**						■	■	■	■	■	■	■			■
16.6	19	5.47	26	■		■	■	■		■		■	■		■	■		■
15.1	**8**	**5.46**	**27**			■					■	■			■	■		
17.5	25	7.52	10	■	■	■	■	■					■		■			
17.5	**25**	**7.52**	**10**		■													
20.3	44	3.72	37		■	■		■	■	■	■	■	■		■			
17.4	**24**	**6.86**	**18**	■		■		■				■	■	■	■			
23.6	50	3.63	39		■	■		■						■	■			
14.1	**2**	**13.28**	**1**	■						■	■	■	■		■	■		
16.9	22	8.91	4			■	■			■	■				■		■	■
20.7	**47**	**4.03**	**33**			■		■	■	■	■	■	■		■		■	
15.7	11	3.98	35									■	■		■			
16.5	**17**	**5.56**	**25**		■	■				■			■	■	■			
14.4	3	2.80	42						■	■	■							

	INVESTING IN INFRASTRUCTURE AND AMENITIES continued										MOBILIZING		
	Assuring Affordable Housing						Public Health Assistance		Arts Approps. per capita		Reforming Finance Regs.		
	Housing Constr.	Housing Rehab.	Tenants Support	Home Ownshp.	Predev. Costs	Housing Trust	Score	Rank	$	Rank	Branch Banking	Pension Invest.	CRAs
Alabama							158	47	0.24	42	■		
Alaska	■	■	■	■	■		185	30	4.10	1	■		
Arizona							146	48	0.34	36	■		
Arkansas		■					160	45	0.42	32			
California	■	■	■	■	■	■	245	6	0.47	28	■		
Colorado	■	■		■	■		196	23	0.50	26		■	
Connecticut	■	■	■	■	■		247	5	0.52	24	■	■	
Delaware	■	■		■	■	■	184	31	0.95	12	■	■	
Florida		■			■		191	29	1.09	8			
Georgia							195	25	0.44	31			
Hawaii							218	16	2.15	4	■		
Idaho							169	43	0.13	50	■		
Illinois		■					217	17	0.76	17		■	
Indiana		■		■			192	26	0.34	36	■		■
Iowa							222	11	0.26	41		■	
Kansas							207	20	0.23	44	■		
Kentucky							196	23	0.53	23			
Louisiana							176	39	0.21	45			
Maine	■	■	■	■	■	■	222	11	0.41	33	■		
Maryland	■	■	■	■		■	220	13	1.07	9	■		
Massachusetts	■	■	■	■	■		253	4	3.13	2	■		■
Michigan	■	■		■	■		224	10	1.25	6		■	■
Minnesota							264	1	0.66	18		■	
Mississippi							133	50	0.16	49	■		
Missouri							159	46	0.83	14			■
Montana	■			■			201	22	1.03	10			
Nebraska							209	19	0.36	35			
Nevada	■						167	44	0.18	47	■		
New Hampshire							177	37	0.33	39	■	■	
New Jersey						■	235	7	1.77	5	■		
New Mexico	■	■					177	37	0.47	28			
New York	■	■	■	■	■		260	3	2.73	3	■	■	■
North Carolina							180	35	0.63	20	■		
North Dakota							180	35	0.63	20			
Ohio	■	■	■		■		192	26	0.85	13		■	■
Oklahoma							172	41	0.46	30			
Oregon					■		228	9	0.19	46	■	■	
Pennsylvania				■	■		213	18	0.65	19	■	■	
Rhode Island	■				■		219	14	0.61	22	■		
South Carolina							183	32	0.82	15	■		
South Dakota							183	32	0.82	15	■		
Tennessee				■			181	34	0.29	40			
Texas							173	40	0.18	47			
Utah							202	21	0.98	11	■		
Vermont							219	14	0.49	27	■	■	
Virginia							171	42	0.51	25			
Washington						■	229	8	0.38	34	■	■	■
West Virginia		■		■	■		192	26	1.11	7			■
Wisconsin		■		■			261	2	0.24	42		■	
Wyoming							141	49	0.34	36			

CAPITAL							PROMOTING NEW ENTERPRISES & STRENGTHENING EXIST'G BUSINESSES										
New Institutions				Improv. Info. & Reducing Risk										Export Assistance			
Quasi-Publics	BDC's	Loan Funds	BIDCOs	Loan Guars.	Invest. Networks	Export Finance	R&D Grants	R&D Centers	SBACs	Incubators	Tech. Transfer	Empl. Ownshp.	Lab/ Mgmt. Asst.	Buyers/ Sellers	Pubns.	Counseling	Seminars
		■					■		■	■	■			■	■	■	■
■						■								■		■	■
								■			■			■	■	■	■
	■	■		■	■	■	■	■	■	■	■			■	■	■	■
		■	■	■		■	■	■				■		■	■	■	■
		■				■	■	■	■	■	■			■	■	■	■
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	■				■			■	■	■				■	■	■	
		■						■		■	■			■	■	■	■
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		■						■	■				■				
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	■						■	■	■	■				■	■	■	
	■	■							■						■		■
	■	■							■			■					
	■	■		■			■	■	■	■	■	■		■	■	■	■
■	■						■	■		■	■			■	■	■	■
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							■		■		■						
■	■	■					■	■	■		■	■		■	■	■	■
	■	■				■	■	■	■	■	■	■	■	■	■	■	■
	■	■		■			■		■					■	■	■	■
■	■	■			■	■	■	■	■	■				■	■	■	■
		■				■		■	■	■				■	■	■	■
						■		■						■	■	■	■
		■				■		■	■		■			■	■	■	■
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							■	■	■	■				■	■	■	■
								■	■	■				■	■	■	
		■							■			■	■	■	■	■	■
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■	■	■		■	■		■		■					■	■	■	■

	INVESTING IN DISADVANTAGED INDIV. AND COMMUNITIES						AGRICULTURAL DEVELOPMENT*			
	AFDC Benefits		Transfer Invest.				Agricultural Finance			Agric. Divers.
	%	Rank	Score	Rank	Commty. Devmt.	Rapid Response	Linked Loans	Direct Loans	Agric. IDBs	
Alabama	16.11	50	133	48		■			■	■
Alaska	56.88	2	98	28				■		■
Arizona	31.86	32	70	14		■				
Arkansas	24.98	46	110	38		■		■		■
California	53.08	4	39	5		■				
Colorado	32.87	29	45	9					■	
Connecticut	43.28	14	47	11		■				
Delaware	30.01	35	46	10					■	■
Florida	26.51	42	73	15	■					
Georgia	27.85	40	126	44					■	■
Hawaii	45.44	11	123	43				■		
Idaho	36.22	23	113	40		■				
Illinois	29.95	36	94	27			■	■	■	■
Indiana	28.94	37	101	32	■		■		■	■
Iowa	38.46	20	100	31			■	■	■	■
Kansas	38.13	21	99	29		■	■			■
Kentucky	26.29	43	132	46		■			■	
Louisiana	25.02	45	130	45					■	
Maine	48.75	7	30	2			■	■		■
Maryland	30.29	34	38	4						
Massachusetts	39.68	19	3	1	■	■			■	■
Michigan	49.05	6	89	23	■		■		■	
Minnesota	50.03	5	52	12	■			■		■
Mississippi	17.59	49	149	50		■		■		■
Missouri	28.59	38	121	42			■	■	■	
Montana	43.48	13	135	49		■	■	■	■	■
Nebraska	34.34	26	99	29				■	■	■
Nevada	27.21	41	103	33						
New Hampshire	34.43	25	44	8	■					
New Jersey	30.69	33	75	17						
New Mexico	33.59	27	110	36					■	■
New York	42.09	15	39	5						■
North Carolina	27.56	39	132	46		■			■	■
North Dakota	41.16	16	104	35			■	■	■	■
Ohio	32.54	30	32	3	■	■	■		■	■
Oklahoma	36.93	22	57	13					■	
Oregon	44.16	12	81	21	■					■
Pennsylvania	40.40	17	74	16		■		■		
Rhode Island	47.89	10	91	24						
South Carolina	25.95	44	77	19		■			■	
South Dakota	40.17	18	104	35			■	■	■	■
Tennessee	19.37	47	79	20		■				■
Texas	19.35	48	103	33		■			■	■
Utah	48.74	8	105	37		■		■		■
Vermont	60.11	1	41	7						
Virginia	32.37	31	92	25					■	
Washington	[illegible]	9	83	22		■		■		
West Virginia	35.11	24	92	25		■				
Wisconsin	56.75	3	75	17	■	■	■	■	■	■
Wyoming	33.54	28	118	41			■	■		■

*Informational subindex only. This data was not used to calculate the *Policy Index* grades.

Policy Data Sources

Note: This year, data on state programs and policies collected through the secondary sources listed below were supplemented through a direct survey of the states. To conduct the survey, CfED attempted to establish a consistent contact in every state government, assigned through the Governor's office, to respond to the state policy survey which was constructed and distributed by CfED. Data gathered in this manner are generally current through December 1987. Altogether, thirty-six states chose to respond to the survey, with varying degrees of completeness.

Subindex One: Improving Governance and Regulation

Streamlined Permitting

States with one-stop permitting systems, 1985.
Source: U.S. Small Business Administration, Office of Advocacy, *Directory of State Business Issues: Looking Toward the Future* (Washington, D.C.: Government Printing Office, October 1985); and U.S. Small Business Administration, Office of Advocacy, "State Small Business Activities," updated, unpublished table, 1986.

Legislative Oversight and Audit

States with a legislative audit offices, 1985.
Source: National Conference of State Legislatures, "Legislative Program Evaluation in the States," testimony by Rich Jones to the Oregon Joint Committee on Program Evaluation, Salem, Oregon, March 31, 1986.

Subindex Two: Creating a Stable and Equitable Tax and Fiscal Environment

Fiscal Stability and Balanced Revenue Sources

Assessment of fiscal stability and balance of revenue sources, by state. Score.
Source: The Corporation for Enterprise Development, "The Tax and Fiscal Policy Index," research report for the Economic Climate Project, January 1988.
Please see Appendix D for complete text of report.

Tax Fairness

Assessment of tax fairness, by state. Score.
Source: The Corporation for Enterprise Development, "The Tax and Fiscal Policy Index," research report for the Economic Climate Project, January 1988.
Please see Appendix D for complete text of report.

Fiscal Equalization

Assessment of fiscal equalization, by state. Score.
Source: The Corporation for Enterprise Development, "The Tax and Fiscal Policy Index," research report for the Economic Climate Project, January 1988.
Please see Appendix D for complete text of report.

Final Score

Tax and fiscal environment, by state. Score.
Source: The Corporation for Enterprise Development, "The Tax and Fiscal Policy Index," research report for the Economic Climate Project, January 1988.
Please see Appendix D for complete text of report.

Subindex Three: Investing in Education

Support for Education

- *Pupil Spending, K-12*
  Current expenditures for public elementary and secondary schools, per pupil (average daily attendance) as percent of per capita income, 1985-1986.
  Source: State Policy Research, Inc., "Table G-14, *State Policy Data Book '87* (Alexandria, VA: State Policy Research, Inc., 1987).

- *Pupil Spending, Higher Education*
  State support of higher education per pupil (full-time equivalent) as percent of per capita income, 1985-1986.
  Source: State Policy Research, Inc., "Table G-39," *State Policy Data Book '87* (Alexandria, VA: State Policy Research, Inc., 1987).

- *Pupil/Teacher Ratio*
  Pupils per teacher, 1985-1986
  Source: State Policy Research, Inc., "Table G-21," *State Policy Data Book '87* (Alexandria, VA: State Policy Research, Inc., 1987).

- *Changes in Teacher Salary*
  Percent change in average teacher salary, 1986-1987.
  Source: American Federation of Teachers, Department of Research, "Survey and Analysis of Salary Trends," Washington, D.C., 1987.

Reform of Education

- *High School Science and Math Graduation Requirements*
  States with high school science and math requirements, 1987.
  Source: Education Commission on the States, *Clearinghouse Notes*, August 1987.

- *Computer Literacy*
  States with student computer literacy programs, 1985.
  Source: Education Commission on the States, *Clearinghouse Notes,* September 1985, November 1985, and August 1986; and Chris Pipho, "States Move Reform Closer to Reality," *Kappa Special Report*, December 1986.

- *Remedial and Compensatory Programs*
  States with state-funded compensatory education and remediation programs, 1986.
  Source: National Governors' Association, *Results in Education: 1987* (Washington, D.C.: National Governors' Association, 1987).

- *Teacher Mentors*
  States with statewide teacher mentor internship programs, 1986.
  Source: National Governors' Association, *Results in Education: 1987* (Washington, D.C.: National Governors' Association, 1987).

- *Teacher Incentives*
  States with statewide teacher incentive programs for recruiting and retaining teachers, 1986.
  Source: National Governors' Association, *Results in Education: 1987* (Washington, D.C.: National Governors' Association, 1987).

Subindex Four: Investing in Infrastructure and Amenities

Public Capital Budgeting

- *Facility Inventory*
  States that maintain a central unified inventory of public facilities, 1987.
  Source: National Conference of State Legislatures, *Capital Budgeting and Finance* (Denver: National Conference of State Legislatures, November 1987).

- *Needs Assessments*
  States that provide regular assessments of facility conditions and investment needs, 1987.
  Source: National Conference of State Legislatures, *Capital Budgeting and Finance* (Denver: National Conference of State Legislatures, November 1987).

- *Capital Plans*
  States that develop long-range capital plans to guide annual capital budget requests, 1987.
  Source: National Conference of State Legislatures, *Capital Budgeting and Finance* (Denver: National Conference of State Legislatures, November 1987).

Environmental Policy

- *Community "Right-to-Know"*
  States with "right-to-know" laws concerning hazardous waste, 1986.
  Source: Fund for Renewable Energy and the Environment, *The State of the States, 1987* (Washington, D.C.: Fund for Renewable Energy and the Environment, 1987).

- *State Superfunds*
  States authorized by law to assess hazardous waste sites, initiate remedial clean-up actions and/or enforce assessments on responsible parties, 1986.
  Source: Fund for Renewable Energy and the Environment, *The State of the States, 1987* (Washington, D.C.: Fund for Renewable Energy and the Environment, 1987).

- *Air Permit and Emissions Fees*
  States with air permits and emissions fees, 1986.
  Source: State and Territorial Air Pollution Program Administrators and the Association of Local Air Pollution Officials, "Air Permit and Emission Fees: Results of a Survey," April 1987.

Farmland Protection

- *Right-to-Farm Laws*
  States with laws to protect farmers from certain legal actions against normally accepted farming practices, 1986.
  Source: National Association of State Departments of Agriculture, *Farmland Notes*, January 1987.

- *Development Rights — Purchase*
  States that may purchase the development rights of farmland by paying the owner the difference between the market value and farm-use value of the land, 1986.
  Source: National Association of State Departments of Agriculture, *Farmland Notes*, January 1987.

- *Development Rights — Transfer*
  States that allow qualifying developers to increase development density in designated receiving areas if they purchase development rights from farmers whose property is in other designated sending areas to protect their use of land for farming, 1986.
  Source: National Association of State Departments of Agriculture, *Farmland Notes*, January 1987.

- *Agriculture District Ordinances*
  States that allow farmers to organize land into legally recognized geographic areas restricted to agricultural use, 1986.
  Source: National Farmland Trust, Staff Interview, 1987.

Assuring Affordable Housing

- *Housing Construction*
  States that use own-source fund to finance new housing construction, 1986.
  Source: Council of State Community Affairs Agencies, *State Housing Initiatives*, (Washington, D.C.: Council of State Community Affairs Agencies, 1986.)

- *Housing Rehabilitation*
  States that use own-source funds to provide financial assistance for housing rehabilitation, 1986.
  Source: Council of State Community Affairs Agencies, *State Housing Initiatives*, (Washington, D.C.: Council of State Community Affairs Agencies, 1986.)

- *Tenant Support*
  States that use own-source funds for financial assistance to tenants, 1986.
  Source: Council of State Community Affairs Agencies, *State Housing Initiatives*, (Washington, D.C.: Council of State Community Affairs Agencies, 1986.)

- *Home Ownership*
  States that use own-source funds to provide financial assistance for home ownership, 1986.
  Source: Council of State Community Affairs Agencies, *State Housing Initiatives*, (Washington, D.C.: Council of State Community Affairs Agencies, 1986.)

- *Pre-Development Costs*
  States that use own-source funds for financial assistance for land acquisition and/or development, 1986.
  Source: Council of State Community Affairs Agencies, *State Housing Initiatives*, (Washington, D.C.: Council of State Community Affairs Agencies, 1986.)

- *Housing Trust Funds*
  States with dedicated funds for housing construction, 1986.
  Source: Housing Trust Fund Project, Staff Interview, Oakland, CA, 1987.

Access to Public Health Assistance

Index of eligibility, services, types of providers, quality and reimbursements of state Medicaid programs, 1986.
Source: Public Citizen Health Research Group, *Poor Health Care for Poor Americans: A Ranking of State Medicaid Programs* (Washington, D.C.: Public Citizen Health Research Group, 1987).

State Arts Agency Appropriations

State arts agencies appropriations per capita, fiscal year 1987.
Source: Annual Survey (Washington, D.C.: National Assembly of State Arts Agencies, November 1987).

Subindex Five: Mobilizing Capital

Reforming Finance Regulations

- *Intrastate Branch Banking*
  States which allow intra-state banking, 1985.
  Source: Conference of State Banking Supervisors, *Annual Survey of State Banking Statutes*, (Washington, D.C.: Conference of State Banking Supervisors, January 1986).

- *Pension Fund Investment*
  States which invest public pension funds in venture capital, 1987.
  Source: U.S. Small Business Administration, *Capital Formation in the States* (Washington, D.C.: Government Printing Office, January 1988).

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  States with community reinvestment acts, 1986.
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  States with publicly-capitalized venture capital corporations, 1987.
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- *Business Development Corporations*
  States with business development corporations, 1985.
  Source: The National Association of Development Agencies, *Directory of Incentives for Business Investment and Development in the United States, Second Edition* (Washington, D.C.: The Urban Institute, 1986).

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  States with government loan funds, 1985.
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  States with loan guarantee programs, 1985.
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  States with computerized investor networks, 1986.
  Source: University of New Hampshire, Professor Wetzel and associates, interview, 1987.

- *Export Financing*
  States that provide export financing assistance, 1986.
  Source: National Association of State Development Agencies, *State Export Program Database* (Washington, D.C.: National Association of State Development Agencies, 1986).

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States with research and development grants, 1986.
Source: Minnesota Office of Science and Technology, "State Technology Programs in the U.S.," September 1986.

Research and Development Centers

States that finance research and development centers, 1986.
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Small Business Assistance Centers

States with small business development centers, 1986.
Source: U.S. Small Business Administration, staff interview, 1986.

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States with small business incubator programs, 1986.
Source: Minnesota Office of Science and Technology, "State Technology Programs in the U.S.," September 1986.

Technology Transfer

States with technology transfer programs, 1986.
Source: Minnesota Governor's Office of Science and Technology, "State Technology Programs in the U.S.," September 1986.

Employee Ownership Assistance

States with employee ownership assistance programs, 1986.
Source: National Center for Employee Ownership, staff interview, 1986.

Labor-Management Assistance

States with labor-management cooperation programs, 1985.
Source: U.S. Department of Labor, Labor-Management Services Administration, staff interview, 1986.

Export Assistance

- *Buyer/Seller Matching*
  States with programs that match foreign buyers with state businesses, 1986.
  Source: National Association of State Development Agencies, *State Export Program Database* (Washington, D.C.: National Association of State Development Agencies, 1986).

- *Publications*
  States with international business development publications, including newsletters and handbooks or directories with an international or export focus, 1986.
  Source: National Association of State Development Agencies, *State Export Program Database* (Washington, D.C.: National Association of State Development Agencies, 1986).

- *Counseling and Marketing Services*
  States that provide outreach, counseling and marketing services to state businesses on export assistance, 1986.
  Source: National Association of State Development Agencies, *State Export Program Database* (Washington, D.C.: National Association of State Development Agencies, 1986).

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  States that hold seminars for businesses on export-related issues, 1986.
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Investment orientation of AFDC programs, 1986.
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Rapid Response Teams

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Subindex Eight: Agricultural Development

Agricultural Finance

- *Linked Deposit Loans*
  States that purchase certificates of deposit from commercial banks that agree to make loans to farmers at below market interest rates, 1986.
  Source: Council of State Governments, Center for Agriculture and Rural Development, "Selected State Financial Assistance Programs for Agriculture," Lexington, KY, 1987.

- *Direct Low Interest Loans*
  States that make agricultural loans from revolving or general funds, 1986.
  Source: Council of State Governments, Center for Agriculture and Rural Development, "Selected State Financial Assistance Programs for Agriculture," Lexington, KY, 1987.

- *Agricultural Industrial Development Bonds*
  States that use bond sale proceeds to fund agricultural loans, 1986.
  Source: Council of State Governments, Center for Agriculture and Rural Development, "Selected State Financial Assistance Programs for Agriculture," Lexington, KY, 1987.

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Endnotes

1. For an excellent overview of this "revolution," see David Osborne, *The Next Agenda: Lessons from the Laboratories of Democracy* (Cambridge, MA: Harvard Business School Press, 1988); Roger Vaughan, Barbara Dyer and Robert Pollard, *The Wealth of States: Policies for a Dynamic Economy* (Washington, D.C.: Council of State Policy and Planning Agencies, 1986); The Corporation for Enterprise Development, *Building the New Economy: States in the Lead*, David R. Jones, Editor, (Washington, D.C.: Corporation for Enterprise Development, 1986); Marianne Clarke, *Revitalizing State Economies: A Review of State Development Policies and Programs* (Washington, D.C.: National Governors' Association, 1986); and Scott Fosler, *Partnership for State Economic Progress* (New York: Committee for Economic Development, April 1986) and Scott Fosler, *The New Economic Role of American States* (New York: Oxford University Press, 1988).

2. Andrew Reamer, "State and Local Development Policy: Copycat or Custom-Fit," *The Entrepreneurial Economy*, May 1985.

3. David Aschauer, "Is the Public Capital Stock too Low?" *Chicago Fed Letter*, October 1987.

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6. See, for example, U.S. Department of Education, *A Nation at Risk* (Washington, D.C.: Government Printing Office, 1986).

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8. For research on this issue, see James Botkin, Dan Dimancesh and Ray Stata, *Global Stakes: The Future of High Technology in America* (Cambridge, MA: Ballinger Publishing Company, 1982); James Hickman and John Strong, "The Evolution of New England Industry," *New England Economic Review*, March/April 1986; U.S. Congress, Joint Economic Committee, "Location of High Technology Firms and Regional Economic Development," June 1, 1982; and U.S. Congress, Office of Technology Assessment, *Technology, Innovation, and Regional Development* (Washington, D.C.: Government Printing Office, July 1984).

9. We do not believe that "coercive" work programs, in which recipients are required to "work off" their benefits, are desirable because most reliable data suggest that voluntary programs are cheaper, more effective and better address the true barriers to self-sufficiency. See the upcoming Robert E. Friedman, *Safety Net as Ladder: Transfer Payments and Economic Development* (Washington, D.C.: Council of State Policy and Planning Agencies, projected publication in 1988).

In Search of Better Measures

No index can hope to capture the full complexity and dynamics of a state economy. The best we can do is take a "stop-action photo" of the economies of the states in the race for the future. Despite this drawback, we continue to strive to produce a clearer picture.

The *1988 Development Report Card for the States* includes many new or refined measures. These changes make the 1988 results better than the 1987 results, but they also make comparisons between the two years difficult. We expect next year's measures to change less dramatically, making direct comparisons easier.

But we still seek improvements. In the Performance Index, we will seek improved measures in four areas:

- First, in the Employment subindex, we will attempt to account for the proportion of full-time jobs to part-time or seasonal ones.

- Second, in the Income and Job Quality subindex, we will attempt to control directly for differences in cost of living (a task we pursued without success this year), and we will pursue measures of job quality beyond just health coverage.

- Third, in the Equity Subindex, we will seek to portray more clearly disparities among both individuals and communities. Specifically, in recognition of the increasing importance of women's earnings to family incomes and the slowly improving relationship between the rewards for work and the effort made, we will pursue a state-by-state measure of women's earnings in relation to men's. And, to more accurately reflect the growing trend toward "split-level" economies, we will pursue measures that illuminate urban-rural and other disparities among communities and regions.

- Fourth, we will continue to seek appropriate and universal measures for portraying the existing quality of life outputs in each state — the safety of drinking water, the quality of air, the availability of recreational facilities, the richness of cultural amenities, and more — the things which, taken together, represent a key component of how well economies are performing.

Perhaps our greatest challenge is to find measures that accurately portray the vitality of existing businesses in state economies. Measures of firm profitability and dynamic flexibility — new management practices, adoption of new technology, international marketing orientation — are hard to come by, but they are crucial to an accurate Competitiveness of Existing Business subindex. We would also like to be able to gauge the extent to which states cultivate self-employment, both to improve incomes and to plant the seeds of larger businesses. Finally, we will seek measures of Structural Diversity which do not penalize states that have many sectors experiencing strong growth.

In the Capacity Index, we will seek better ways to measure the outputs of the education and financial system, not just the inputs — for example, educational competency measures, direct measures of seed and risk capital availability, and more accurate housing cost and amenity variables. In addition, next year we hope to be able to introduce a new subindex, Local Institutional Capacity, designed to address the capacity of communities to stimulate and support economic development activity. Measures might include the number and quality of non-profit development organizations, the existence of public-private partnerships, and the presence of skilled staff devoted to cultivating local activity, among others.

Finally, in the Policy Index, there are a number of areas and initiatives we will pursue — such as improved measures of government regulation,[1] training initiatives, and distressed area development. But the overwhelming challenge is to assess the *quality* of the initiatives, not simply their quantity, and to keep track of the innovation that occurs constantly.

We believe deeply that all states can move forward, and offer the *Development Report Card for the States* as a tool toward that end. Ultimately, we will take our grade on how helpful the *Report Card* is in our mutual quest.

Endnote

1. For an example of such an analysis, see Bernard L. Weinstein and Harold T. Gross, *Texas' Business Climate: Good or Bad?* (Dallas: Center for Enterprising, Edwin L. Cox School of Business, Southern Methodist University, November 1987).

Appendix A: Notes on Methodology and the Development Model

The Development Model

This is the second year we have presented our assessment — in the form of a *Development Report Card* — of how supportive each state's economic environment is for business development. During the course of the year, state economies have continued to evolve. But the heart of the *Report Card* remains its model of the development process. Stated simply, our understanding of the development process follows.

- What we seek from an economy is long-term, widely-shared increases in our standard of living — tangible and intangible.

- The economy's performance largely results from the vitality of the business community, which organizes and manages most economic activity. Business vitality is rooted in competitive edge, diversity, market strength and long investment horizons, as well as the ability of new firms to start up and older ones to innovate and adapt.

- Business vitality springs from effectively using and augmenting the building blocks of development: human skills, finance, technology, natural resources and amenities. We call these development ingredients a state's capacity.

- Government policies can foster or undermine performance, capacity and vitality — thereby leading to stronger or weaker economic performance.

This model incorporates the findings from an extensive literature review of the dynamics of development and the obstacles to economic growth.[1] Our research has been guided by a technical advisory board composed of economic experts and representatives from business, labor, government and community development organizations, while drawing upon our own experience in the economic development field.

Report Card Rationale and Cautions

Like school report cards, this one is intended to identify areas where greater individual effort is desirable and useful — it should be used as a tool for making progress and not as a punishment for past practices.

To produce the *Development Report Card*, we have resisted the temptation to construct one quantitative index that would enable ranking all the states from one to fifty. Although such a summary short-hand approach captures the public imagination and proves easy and dramatic to publicize, it also unduly telescopes the very complex process of development into a single number that means little to those who are more interested in strengthening their state's economy than in capturing newspaper headlines.

Numerical rankings also obscure similarities among states and tend to take on an importance out of proportion to their real value. So instead, we chose to assign "grades" — from *A* to *F* — to states with relatively similar levels of performance on our four separate indexes, thus providing benchmarks for evaluating the separate, but related, dimensions of state economic performance, business vitality, resource capacity and public policy. Though we recognized this could also distort, grades have the advantage of attracting attention and guiding that attention to these four most important dimensions.

As in school, there can be differences in actual scores within these grades but, given the inadequacy of available data, and the imprecision of some of the data available, grade ranges are as close as we believe anyone can reasonably come in sorting out the overachievers and underachievers.

By its very nature, assigning grades compares states relative to one another and does not convey a sense of absolute levels. So, for example, if a state has been lacking in financial capacity and makes significant strides in improving its capacity, it may still receive a low grade if other states have also made advancements in adding financial capacity at the same time.

What's New This Year?

Most of the significant changes in index and subindex construction since the 1987 *Development Report Card* are discussed within each index under this same heading: *What's New This Year?* We expect significantly fewer changes in future years largely because, whenever possible, we have tried to develop and choose measures that can be updated on an annual basis.

However, we should call to attention one overall change in how we assigned index and subindex grades. In the 1987 *Development Report Card*, grades within a subindex or index were assigned evenly: the top ten scoring states received *A*'s; the next ten, *B*'s; the third set, *C*'s; the fourth, *D*'s; and the bottom ten scores, *F*'s. The exception in 1987 was the Policy Index, where there were no subindex grades and the final grade was assigned according to what teachers would call a natural "curve" — that is, easily identifiable breaks in score clusters.

But we came to realize that this grading scheme was *too* harsh — 20 percent of the states earned failing grades — and gave a greater sense of precision to the middle range of grades than in fact was appropriate. So this year we altered how we assign *C*'s, *D*'s and *F*'s. The first ten index or subindex scores still receive an *A*, and the second ten *B*, but the next fifteen now receive a *C*, the following ten a *D*, and the remaining five an *F*.

Index Construction

Choosing Indexes, Subindexes and Variables

The actual construction of the four indexes in this *Development Report Card* is relatively straightforward. Each index is made up of a series of subindexes chosen on the basis of the determinants of economic development uncovered in our research.

The number of subindexes which form a final index varies from index to index:

- The Performance Index has three subindexes used in calculating the grade — Employment, Earnings and Job Quality and Equity.

- The Vitality Index has three subindexes — Competitiveness, Entrepreneurial Energy and Structural Diversity.

- The Capacity Index has four subindexes — Human Resources, Technology Resources, Financial Resources, and Infrastructure and Amenities.

- The Policy Index has seven subindexes falling under two broad categories:

Development Preconditions, comprised of the Governance and Regulation, Tax and Fiscal Environment, Education, and Investments in Infrastructure and Amenities subindexes; and

Development Initiatives, composed of Mobilizing Capital, Promoting New Enterprises and Strengthening Existing Businesses, and Assistance to Disadvantaged Individuals and Communities subindexes.

Subindexes are constructed with individual variable measures — like infant mortality or the unemployment rate. A number of the individual variable measures within the subindexes are themselves what we call *composite measures*. Actually, they might be considered sub-subindexes. A composite measure data score has been determined by examining several individual factors which contribute to it. Good examples of composite measures can been found in the Policy Index — in the three separate measures comprising the Tax and Fiscal Climate subindex, as well as in the *Transfer Payment Investment* measure.

Deriving the Scores, Ranks and Grades

The method of deriving a subindex and index ranks and grade is as follows:

- Variable data — the "score" — is collected for each state. The best score receives a ranking of 1. When a tie occurs, both states receive the same ranking, and then the next highest scoring state is ranked as if a tie had not occurred. For example, if the two best ranking states have identical variable scores, they both receive a rank of 1, and the next state is assigned a rank of 3.

- To compile a subindex, each individual state's rank for the variable measures are all added together. This created total is the subindex score. Subindex scores are then ranked from 1 to 50. Ties are treated in the same way as for individual variable measures.

- Creating a final index score involves a process very similar to creating the subindex scores. State ranks on each subindex are, as in the creation of subindexes, added together, creating an index score. The resulting scores are then ranked from 1 to 50.

- Grades are assigned to each subindex and index final score. In each case, the top ten scoring states receive *A*'s the next ten receive *B*'s; the middle fifteen receive *C*'s; the next ten receive *D*'s; and the final five receive *F*'s. (See *What's New This Year?* above.)

Variable and Subindex Weights

Assigning weights within each index to subindexes is at this time essentially arbitrary (and consistent), in that it largely depends on the number of subindexes within an index. We felt that the simplest and potentially least misleading technique would be to assign equal weights to subindexes in three indexes: Performance, Capacity and Policy. For example, in the Performance Index there are three subindexes. Therefore, each subindex carries a weight of 33 percent. Individual variable measures, consequently, have different effective weights, depending on the number of variables which compose a subindex. However, in the Business Vitality Index, because the Structural Diversity subindex contains only one individual variable measure — and, as we explain in the text, a limited one at that — we assigned it a weight of one-seventh, thus weighting each of the two other Vitality subindexes — Competitiveness and Entrepreneurial Energy — three-sevenths.

Endnote

1. A copy of the original bibliography developed for CfED's Economic Climate Project was published in the first edition (1987) of the *Development Report Card*. An updated bibliography is available from CfED upon request.

Appendix B: Rural States and the Economics of Necessity

For most of America's rural states, entrepreneurship — creating a business of one's own — is more than just a new trend: it is a practical economic necessity. In the face of formidable odds, people in rural communities are founding new businesses at remarkably high rates, given their economic performance and available resources, because, quite literally, it is the only game in town. This entrepreneurship is one of the brightest spots in the otherwise bleak picture of rural state economies illuminated by the *1988 Development Report Card for the States*.

After the booming decade of the 1970s, which many demographers heralded as an historic reversal of the decades-old flight of rural residents to the city, hard times returned with a vengeance to rural America in the 1980s. During the 1970s, rural areas posted a net increase in population of more than 350,000 people. But by 1982 the trend had reversed again and the losses grew. By 1986 America's rural population had declined by 632,000 people. Driven in part by the collapse of the farm economy, unemployment rates, which had been lower than in urban areas throughout the 1970s, exceeded unemployment rates in cities every year in the 1980s. What's more, when the recovery began to drive *urban* unemployment levels down in the mid-1980s, *rural* unemployment continued to rise. Poverty rates followed a similar pattern.[1] In 1979, rural poverty rates exceeded urban poverty rates by less than 30 percent; by 1986, that disparity had grown to nearly 50 percent.[2]

While not designed specifically to address these urban-rural disparities within a state, the *1988 Development Report Card for the States* does shed light on both the current economic condition of America's predominantly rural states and on what, if anything, these states are doing to improve their overall competitive position in the nation's economy.

We consider "rural" those states in which at least 50 percent of the labor force lives in non-metropolitan areas. By this definition, states that, geographically at least, appear highly rural — like Pennsylvania or New York — are excluded. Conversely, some states that do meet this definition are heavily influenced by a major urban area — the way southern New Hampshire and southern Maine, for example, are affected by Boston — but are included.

In all, we classify fifteen states as predominantly rural. These rural states fall generally into four geographic areas:

- New England: Maine, New Hampshire and Vermont;

- The Southeast and Appalachia: Arkansas, Kentucky, Mississippi and West Virginia;

- The Plains: Iowa, Nebraska, North and South Dakota; and

- The Mountain States: Idaho, Montana and Wyoming.

The fifteenth state is Alaska which, while in a region all its own, functions economically much like one of the Mountain States.

Rural Economic Performance

Not surprisingly, the economic performance of the rural states generally is not good. Nearly half score no better than a *D* in the Performance Index. Four more earn *C*'s. The three New England states are an exception with each receiving an *A* in Performance, though their rural areas lag behind the growth of their urban areas.

The Plains states receive *C*'s overall in the Performance Index, but at the subindex level — in Earnings and, to a lesser degree, Employment — their scores often fall to *D* or *F*. Their composite rankings would be lower were it not for good scores in the Equity subindex, caused principally by the homogeneity of their populations. The overall picture here is of economies slogging gamely along in the face of continuing adversity.

The rural states with the lowest scores in the Performance Index are the Southeastern/Appalachian states and the Mountain states. While the Southeastern states labor under the burden of a long legacy of rural poverty and underinvestment, these two regions have some surprising similarities. Both depend economically on the production and export of low-value agricultural commodities and energy resources. They had done relatively well when these resources and commodities fetched high prices, but when these prices collapsed they had no alternative economic activity to fall back upon. While the rest of the nation prospers, these states have yet to recover.

Rural Business Vitality

The tendency of rural states to have low value-added economies is illustrated by the Competitiveness subindex of the Vitality Index. All but four of the rural states earn fair to poor grades in Competitiveness, largely because of the weakness of their traded sector businesses. The three New England states score *A*'s — a reflection of the boom in new business development in those states. West Virginia scores a surprising *A* because its dominant industry is mining, which is high in value-added. The price West Virginia pays for this dominance, however, shows up in the Structural Diversity subindex, where the state earns an *F*. Alaska is in a similar situation. Many of the other rural states score reasonably well in Diversity, suggesting that while their economies still tend to rely disproportionately on one or two industries, there is more to their economies than meets the eye.

Perhaps the most significant overall finding for rural states in the *Report Card* is the high degree of Entrepreneurial Energy they possess. Only three of the fifteen rural states score failing grades in entrepreneurship — that is, in the rate at which they create successful new businesses. And even these figures may be understated: they include only successful incorporations, not sole proprietorships or self-employment. For many residents of rural communities in which there are few conventional sources of employment, starting a business of their own is the only alternative to leaving town. Necessity, in short, becomes the mother of invention. Even in a state like Iowa, which received an *F* this year in the Entrepreneurial Energy subindex, there is growing evidence that more and more people are choosing to create their own businesses in order to maintain their rural roots.[3]

Rural Development Capacity

Will all these new businesses be able to grow? The scores these states earn in the Capacity Index cast a cloud over their future prospects.

With the notable exception of the Southeastern and Appalachian states, the rural states have exceptionally well-educated, work-ready workforces. High school attainment is very high, adult illiteracy is very low. To some extent, these results are artifacts of rural culture: the public high school is often the heart of the community and dropout levels tend to be very low. College attainment, however, is often low in these states, partly because this same culture has, in the past at least, not placed as high a priority on advanced education, and partly because those who do attend college go elsewhere to do so and then stay away, because there are few employment opportunities for them back home. So the rural states' results in the Educational Capacity subindex of the Capacity Index are mixed.

In the other three Capacity subindexes, however, the results are distressingly uniform. In the Technology, Finance and Infrastructure subindexes, the fifteen rural states score a total of thirteen *F*'s, fourteen *D*'s and thirteen *C*'s. There were no *A*'s and only five *B*'s. In short, there is a widespread pattern of inadequate investment in the basic building blocks of the economy. The foundation upon which businesses depend — for new ideas, for capital, and for basic infrastructure — is tenuous at best in these states. Without these building blocks, businesses both old and new have a more difficult time competing with businesses in other states where these investments are well established and diligently maintained.

To some extent, the poor grades these states earn in the Capacity Index is a result of their earlier success. When your economy depends, as many of these do, upon the income earned from the production of commodities or the extraction of natural resources, there is little incentive to make such investments. Only when the bubble breaks — when the bottom falls out of the markets for these basic goods — does it become clear how much needs to be done to develop a more diverse, more stable, more mature economy. And then it is often too late. Even the high-flying New England states face formidable capacity investment challenges. If they fail to act, their boom may be short-lived as well.

Rural Development Policies

It takes a long time to make up for years of underinvestment. Policies must be developed. Investments must be made. In time, the vitality of the state's businesses will improve and, with it, the employment and income performance of the economy.

Many rural states are hard at work developing policies and programs designed to turn their economies around — mobilizing capital, fostering new enterprises, rebuilding disadvantaged communities, improving government efficiency, reforming tax and fiscal policies and investing in education and infrastructure. In the Southeast and Appalachia, Arkansas and West Virginia are on the road to improvements. In New England, Maine and Vermont are working hard to ensure the long-term health of their booming economies; only New Hampshire appears to be coasting.

The story is very different, however, in the Plains and Mountain states. For the most part, the states in these regions seem at a loss to know how to take control of their own economic destinies. Their relative lack of action to establish the policy preconditions for development or to undertake the most basic initiatives suggests that they are simply waiting for the cycle to turn around again — marking time while their competitors race ahead. It may be a long wait. What's more, when their economies turn sour the next time, they will be no better prepared than they are today.

Looking Ahead

As a general rule, America's rural states trail far behind the urbanized states in the *1988 Development Report Card for the States*. The exceptions to this rule are rural states with the good fortune to share a border with a booming industrialized state like Massachusetts. The more dependent that rural states are on such highly cyclical industries as commodity production and natural resource extraction, the more moribund their economies.

These states are not without significant economic assets, however. They typically have a highly educated workforce — a key demand of the fast-growing, high value-added businesses that lead today's economy. They often have high amenity values — a pleasant environment, good schools and a strong sense of community — the kind of values employers who value the happiness of their employees tend to seek. And perhaps more important than either of these assets, some of these rural states exhibit a remarkable level of "can-do" entrepreneurship. Yes, these are "entrepreneurs of necessity," driven to found their own businesses by the absence of alternatives. But the point is that they chose to stay and create their own futures instead of leaving to seek them elsewhere. And they found others in the community willing to back them. If these rural states can strengthen their development policies and begin making needed investments in development capacity — as Maine and Vermont are doing — these assets can be the springboard to healthier, more resilient rural economies in the future.

Rural States Report Card

	PERFORMANCE INDEX				BUSINESS VITALITY INDEX				CAPACITY INDEX				
	Employmt. Grade	Earnings Job Qual. Grade	Equity Grade	FINAL GRADE	Business Competitiv. Grade	Entrepren. Energy Grade	Struct'l. Divers. Grade	FINAL GRADE	Human Resources Grade	Technolog. Resources Grade	Financial Resources Grade	Infrastruct. Amenities Grade	FINAL GRADE
Alaska	F	C	C	D	C	A	F	C	B	C	C	D	C
Arkansas	C	D	F	D	C	C	A	B	D	F	D	D	F
Idaho	C	F	C	D	C	B	B	C	A	C	D	F	D
Iowa	D	D	B	C	C	F	D	F	B	B	D	F	C
Kentucky	D	D	D	D	C	C	C	C	F	F	C	F	F
Maine	A	B	C	A	A	B	A	A	C	F	D	C	D
Mississippi	D	F	F	F	D	D	C	F	F	F	F	F	F
Montana	D	F	B	D	D	B	B	C	A	D	D	D	C
Nebraska	C	D	C	C	D	D	C	F	A	C	D	B	C
New Hampshire	A	A	A	A	A	A	C	A	B	B	C	C	C
North Dakota	C	F	C	C	C	C	C	C	B	D	D	C	D
South Dakota	C	D	B	C	F	C	B	D	B	F	C	C	D
Vermont	A	B	A	A	A	A	A	A	A	C	C	B	B
West Virginia	F	D	D	F	A	C	F	C	D	D	F	F	F
Wyoming	D	C	C	C	C	C	D	D	B	D	F	B	C

	POLICY INDEX							
	Governance Grade	Tax & Fiscal Grade	Education Grade	Infrastruc./ Amenities Grade	Mobiliz. Capital Grade	Enterprise/ Business Grade	Disadv. Indiv. & Commties. Grade	FINAL GRADE
Alaska	C	C	C	B	C	F	C	C
Arkansas	A	D	A	D	B	A	C	B
Idaho	C	B	F	F	D	F	B	F
Iowa	A	C	D	C	A	A	D	C
Kentucky	A	C	A	C	D	D	C	C
Maine	A	A	A	A	A	C	B	A
Mississippi	A	C	D	F	B	B	D	C
Montana	A	F	B	C	C	B	B	C
Nebraska	C	D	D	F	D	C	D	F
New Hampshire	F	F	D	C	B	F	A	D
North Dakota	F	D	C	D	C	D	D	F
South Dakota	A	F	B	F	C	C	D	D
Vermont	C	C	B	B	A	C	B	B
West Virginia	A	B	C	B	C	C	B	B
Wyoming	C	D	C	D	B	D	F	D

Endnotes

1. See U.S. Department of Agriculture, Agriculture and Rural Economy Division, *Rural Economic Development in the 1980's* (Washington, D.C.: Government Printing Office, July 1987) for a good discussion of current conditions in rural economies.

2. Kathryn H. Porter and Robert Greenstein, "Misperceptions of the Rural Poor and Implications for Welfare Policy," staff paper, Center for Budget and Policy Priorities, Washington, DC, 1987.

3. Mark Popovich and Terry Buss, *Rural Enterprise Development: An Iowa Case Study* (Washington, D.C.: Council of State Policy and Planning Agencies, 1987).

Appendix C: More on Traded Sector and Structural Diversity

For this year's *Development Report Card*, substantial time and effort were invested to develop new indicators of the competitiveness and diversity in a state's economy. Two brand new indicators developed — *Traded Sector Strength* and *Structural Diversity* — are crucial for evaluating the underlying health and vitality of businesses in a state. *Traded Sector Strength* reflects the value added by the key industries in a state, a good measure of its competitiveness. The level of *Structural Diversity* indicates how vulnerable a state may be to downturns in one or several of its critical industries.

Despite the fundamental importance of a competitive and diverse economy, there are no simple or straightforward measures to capture these dimensions of a state's business sector. We have had to rely instead on more complicated and less intuitive measures. We thought, therefore, that they deserved a more extensive explanation.

Traded Sector Strength

As described in the text, the engine of any state economy is its traded sector, comprised by those businesses producing goods and services in competition with firms outside the state. Traded sector firms bring new wealth into an economy by exporting goods and services, and they retain wealth in an economy by substituting for the goods and services that otherwise would have to be imported.

The ideal way to estimate traded sector income would be to use an up-to-date input-output table to calculate precisely the value of exports from a state's businesses. Unfortunately, such up-to-date data do not exist, the latest are over a decade old.

As an alternative, we calculate the size of a state's traded sector by the amount of income it brings into the economy for each civilian worker. Using 1986 data, we estimate for each industry in a state the amount of that industry's income derived from traded sector activities, and sum across all industries to arrive at traded sector income for the state.

Of course, the difficulty in designing such a measure is specifying which industries within an individual state's economy are, in fact, "traded." For several industries (as designated by SIC codes), we assumed that all their income is derived from traded activities. These include manufacturing, insurance carriers, metallic mining, forestry, farming and fisheries. We also designated additional industries as being partially-traded, including banking, securities, health services, educational services, hotels, amusements, wholesale trade and the federal government. These industries differ from state to state in the extent to which their activities are traded. For instance, while in most states banking is mainly a local, non-traded activity, in states like New York and Delaware, much banking activity is traded.

We used two steps to determine the extent to which the income from the partially-traded industries in each state should be counted as traded. First, we determined a location quotient for each industry in each state. A location quotient measures an industry's share of state employment relative to its share of national employment. A location quotient of 1.0 means that the industry has the same share of state employment as it does national employment. A quotient of 1.5 means that the industry's share of employment in the state is 50 percent more than its national share. Next we analyzed the distribution of location quotients for each partially-traded industry to determine the appropriate formula for estimating the percent of industry income which was traded. In each industry, the higher the location quotient, the higher the percent of income that is attributed to trading activity.

To calculate total traded sector income, incomes from the totally-traded and partially-traded sectors were added together. To arrive at the measure of *Traded Sector Strength*, we divided the sum of traded sector income by the number of civilian workers in a state to be able to compare across states.

Structural Diversity

In examining structural diversity, we are concerned not with how diverse a state's economic structure *looks* — for example, how its employment is distributed over a wide range of industries — but rather how diverse it *acts*. That is, in an economy that has structural diversity, when one industry is declining, others are growing or stable. We are, therefore, interested in the diversity of employment change, which provides a measure of protection against downside risk — we don't want to see all of a state's major industries declining at the same time. Our attention is again focused on traded sector industries, since these are the industries that generate wealth in a state.

We attempt to measure the extent of similarity in employment change from industry to industry — known in statistical terms as "covariance." When employment change is diverse, there is a significant amount of negative covariance between industries — so that when one industry is declining, another is growing, and vice-versa.

Obviously, it is important to adjust for the size of each industry, so our measure assigns an industry weight based on what percentage of traded sector employment it holds. The measure also takes into account the actual percentage change in employment in each industry — the higher the percentage, the greater the impact. Thus, if two key industries both decline significantly, the diversity measure is more unfavorably affected than if they both declined a small amount.

A weakness with this diversity measure is that it penalizes states in which all industries are growing. In fast-growth states with many sectors enjoying substantial gains, it is not clear that their industries will also decline together. Hence, this measure must be interpreted with care for fast-growth states like Arizona and Georgia. We will seek refinements next year to avoid this weakness.

To calculate *Structural Diversity*, we use these steps:

Each state's traded sector industries is determined by doing two things:

- First, we include each state's industries classified — according to two-digit SIC code — as manufacturing and mining, insurance carriers, farming, agricultural services or forestry and fisheries.

- We then add in those partially-traded industries in which more than 50 percent of the income is traded (as determined by the formulas discussed above in *Traded Sector Strength*).

Determining the state *Diversity* score involves two more steps.

- First, for every possible pair of included industries, a score is developed. The score is the covariance of employment change in those industries between 1979 and 1986 multiplied by the weight (based on employment size of sector) of one industry times the weight of the other.

- As the second step, the score for every pair of industries is summed to get the state *Diversity* score.

The structure of the *Diversity* formula is such that we aim to keep the number of traded industries in each state between 23 and 27, as too wide a variance would decrease the comparability of the state measures. Consequently, for some states we deleted industries with less than one-quarter of a percent (0.25%) of traded sector employment.

Appendix D:
The Tax and Fiscal Policy Index

The Tax and Fiscal Policy Index comprises the Creating a Stable and Equitable Tax and Fiscal Environment subindex of the Policy Index. It includes three composite measures: *Fiscal Stability and Balanced Revenue Sources*, *Tax Fairness*, and *Fiscal Equalization*.

Fiscal Stability and Balanced Revenue Sources

A balanced revenue system that relies on a variety of taxes serves several purposes. When revenues are raised fairly equally across several different taxes, a state is unlikely to have high tax burdens for any single tax. Balancing revenue sources also reduces a state's vulnerability to large revenue fluctuations during recessions, sectoral decline or economic shocks. Since there is no perfect tax, a final reason to employ a good mix of taxes is to limit the inequities and inefficiencies that may result from any single tax.

As described below, the potential mix of a balanced tax structure is wide enough to offer a state significant discretion in choosing its own tax mix. By itself, a balanced revenue system does not define the "best" possible tax structure for a state. It is only one aspect of a high quality tax structure, whose ultimate goals also include tax fairness, economic efficiency, administrative efficiency and stable revenue-raising potential.

To measure a balanced revenue system, we evaluated the share of total state and local own-source general revenues (i.e., exclusive of federal aid) provided for by four separate taxes. The four taxes used were personal income taxes, general sales taxes, property taxes and all other taxes.

Points were then assigned based on how well each separate tax compared with an "ideal" range that would result in a well balanced and diversified revenue system. Points were assigned using 1985 U.S. Census data compiled by the Advisory Commission on Intergovernmental Relations (ACIR) according to the following formulas:

- *Personal Income Tax.* States received 30 points if personal income taxes accounted for 20 to 30 percent of state and local own-source revenues. Two points were deducted for every percentage point below 20 percent, and one point was deducted for every percentage point above 30 percent.

- *General Sales Tax.* States received 22.5 points if general sales tax revenues accounted for 15 to 25 percent of state and local own-source revenue. Two points were deducted for every percentage point outside this range.

- *Property Tax.* States received 22.5 points if general property tax revenues accounted for 15 to 25 percent of state and local own-source revenue. Two points were deducted for every percentage point above 25 percent, and one point was deducted for every percentage point below 15 percent.

- *All Other Taxes.* States received 15 points if other tax revenues accounted for 10 to 20 percent of state and local own-source revenue. One point was deducted for every percentage point outside this range.

Since business investments are long-term commitments to an area, an important consideration for business when investing in an area is the likelihood that the quality of services paid for through taxation — as well as the level of taxation — will remain stable over time. In addition, with the decline in federal aid and the increased vulnerability of state economies to recession and sectoral decline, states must now pay greater attention to fiscal stability.

To address these fiscal shocks without resorting to tax increases and service cuts, states need to have reserve funds available. Fiscal stability is also enhanced when spending — both direct spending and tax expenditures — is subject to close scrutiny and control. Therefore, the fiscal stability component of this tax measure is based on the presence and size of state "rainy day" reserve funds that address revenue shortfalls, as well as the presence of several fiscal policies that help states control spending.

Using 1986 data from the National Conference of State Legislatures (NCSL) and the April 1987 issue of *City and State*, points were assigned for the rainy day fund component as follows:

- *Rainy Day Fund.* States received 10 points if they had a rainy day fund and four points for every percentage point up to 5 percent of general revenue in their fund. Seven states that established funds in 1986 but had not yet funded them received 10 points. South Dakota, which repealed its fund in 1986, received no points.

Then, using 1984 data from ACIR, *Significant Features of Fiscal Federalism, 1985-1986 Edition*, points were assigned for the other fiscal policy measures in the following manner:

- *Fiscal Notes.* States received 10 points if they issued fiscal notes on the state and local government costs of proposed policies or legislation.

- *Program Evaluation and Sunset.* States received 10 points if they required regular evaluation and sunset of programs.

- *Tax Expenditure Budget.* States received 20 points if they had a legally-mandated tax expenditure budget with estimates of foregone revenues; 10 points if they had a legally-mandated tax expenditure budget that does not estimate foregone revenues; and 5 points if they issued a tax expenditure budget that is not legally-mandated or published annually.

Tax Fairness

States need to be concerned with tax

fairness from two perspectives: treating taxpayers in the same circumstances equally — *horizontal* equity — and tailoring tax burdens to the ability to pay — *vertical* equity.

Fairness helps build political credibility for state and local governments, mitigating individual and business taxpayers' perceptions that the tax system may benefit others at their expense. Horizontal equity also reinforces the neutrality of the tax system by minimizing the favorable treatment of certain economic activities or certain types of taxpayers. Thus, tax fairness can foster a sound business climate by buttressing government's capacity to deliver necessary services, and by placing all businesses on a "level playing field." Finally, a fair tax policy should reduce taxes for taxpayers with limited income and shield the working poor and moderate income families from a regressive tax system.

Five measures of tax fairness are included to develop this variable score. Three measures — sales tax exemptions, sales taxation of services and indexing of the personal income tax — are based on data from ACIR, *Significant Features of Fiscal Federalism, 1987 Edition*. The two sales tax measures are based on the 1987 tax year. Two other measures — state property tax relief and income taxation thresholds — are from the National Conference of State Legislatures publication, *State Tax Relief for the Poor*. Points were assigned on the following basis:

- *Sales Tax Exemptions.* States received 10 points for exempting food, 6 points for exempting utilities and 4 points for exempting drugs from the sales tax. Several states received four points for partial exemptions for utilities, 5 points for a tax credit for sales taxes on food, or 2 points for a tax credit for sales taxes on drugs. States with full exemptions on all these items received 20 points. States without a sales tax received 20 points.

- *Sales Tax on Services.* States received 5 points maximum for sales taxation of services. A state received 5 points for general taxation of most professional services, 4 points for broad taxation of services, 3 points for substantial taxation of services, 1 point for narrow taxation of services and no points for no or little taxation of services.

- *Personal Income Tax Indexing.* States received 10 points if personal income tax brackets were indexed to inflation. Two states that suspended indexing for 1986 received 5 points. States without a personal income tax received 10 points.

- *Circuit Breaker.* States received 20 points for a state-financed circuit breaker available to all taxpayers, 15 points if the circuit breaker was available to all homeowners and elderly renters, 10 points if relief was limited to all homeowners and renters who are elderly and disabled, and 8 points if relief went only to elderly homeowners. A state received 6 points if a state-reimbursed low-income homestead exemption was offered and 4 points if the exemption was limited to the elderly and disabled.

- *Low Income Threshold.* States received 20 points if the income threshold at which a family of four begins paying personal income taxes in 1988 was above the national poverty level. One point was added for every $1,000 above this level up to 25 points and 2 points were deducted for every $1000 below. States without a personal income tax received no points.

Fiscal Equalization

State policies to promote equal fiscal capacity among local governments are essential for a sound business climate. These policies increase the ability of all communities to provide a sufficient level and quality of services to firms and individuals. Furthermore, they reduce the opportunity for large property tax differentials between nearby communities to influence residential and firm location choices. More importantly, equalizing state fiscal aid can alleviate financial stress and high tax burdens in urban centers that have large service needs but low taxable wealth.

Fiscal equalization was measured by the extent to which state governments finance key service costs and provide revenue sharing aid to communities. Scores were based on 1985 Census Bureau data compiled by the Advisory Committee on Intergovernmental Relations according to the following formula:

- *Welfare Costs.* States received .2 points for every percentage point of total state and local welfare costs assumed by state government.
- *Health and Hospital Costs.* States received .2 points for every percentage point of total state and local health and hospital costs assumed by state government.
- *Education Costs.* States received 1 point for every percentage point of total state and local education costs assumed by state government between 30 and 70 percent.
- *General Revenue Sharing.* States received 1 point for every percentage by which its general revenue contribution exceeded the U.S. average, up to a maximum score of 20 points.

Tax and Fiscal Policy Data

	FISCAL STABILTY AND BALANCED REVENUE SOURCES								
	Personal Income Tax 30 max.	General Sales Tax 22.5 max.	Property Tax 22.5 max.	All Other Taxes 15 max.	Rainy Day Fund 30 max.	Fiscal Notes 10 max.	Program Eval. and Sunset 10 max.	Tax Expenditure Budget 20 max.	SUBTOTAL 160 max.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Alaska	0.0	0.0	16.5	6.3	30.0	0	10	5	67.8
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Arkansas	18.8	22.5	20.0	15.0	0.0	10	0	5	91.3
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Colorado	15.9	22.5	22.5	15.0	12.1	10	10	0	108.0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Delaware	30.0	0.0	15.3	6.6	30.0	0	10	0	91.9
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Georgia	22.0	22.5	22.5	15.0	22.0	10	10	0	124.0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Idaho	24.5	22.5	22.5	15.0	10.0	10	0	0	104.5
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Indiana	19.4	22.5	22.5	15.0	29.0	10	10	0	128.4
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kansas	14.1	19.2	22.5	15.0	0.0	10	10	0	90.8
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Louisiana	1.7	22.5	16.3	9.5	0.0	10	10	20	90.0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Maryland	30.0	15.7	22.5	15.0	10.0	10	10	20	133.2
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Michigan	23.6	17.6	16.9	15.0	23.7	10	0	20	126.8
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mississippi	3.9	22.5	22.2	15.0	11.5	10	0	0	85.0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Montana	10.6	0.0	13.2	10.0	0.0	10	10	0	53.8
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nevada	0.0	22.5	21.6	6.7	0.0	10	0	0	60.8
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
New Jersey	12.0	18.2	10.8	14.5	0.0	10	0	0	65.6
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
New York	30.0	22.5	22.5	15.0	12.3	0	0	0	102.3
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
North Dakota	0.0	16.8	22.5	6.8	10.0	0	0	0	56.1
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Oklahoma	13.2	22.5	19.4	7.8	10.0	0	10	0	83.0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Pennsylvania	26.4	19.9	22.5	12.2	11.1	10	10	0	112.0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
South Carolina	22.9	22.5	22.5	15.0	18.2	10	10	0	121.2
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tennessee	0.0	7.0	22.5	14.7	17.2	10	10	0	81.4
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Utah	15.5	22.5	22.5	15.0	10.0	10	10	0	105.5
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Virginia	28.2	17.0	22.5	13.6	15.3	10	0	0	106.6
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
West Virginia	21.9	22.1	19.7	14.6	0.0	10	10	0	98.3
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wyoming	0.0	12.3	21.9	10.9	30.0	10	10	0	95.1

For final *Tax and Fiscal Environment* score, rank and grade, please see *Policy Index*. For further detail on individual measures, please see the appendix text.

TAX FAIRNESS						FISCAL EQUALIZATION				
Exempt Food, Drugs, Utils. 20 max.	Sales Tax on Servs. 5 max	PI Tax Indexing 10 max.	Circuit Breaker 20 max.	Low Income Threshold 25 max	SUBTOTAL 80 MAX	Welfare 20 max.	Health & Hospital 20 max.	Education 40 max.	Gen. Rev. Sharing 20 max.	SUBTOTAL 100 Max.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	0	10	4	0.0	34.0	19.0	13.6	35.1	20.0	87.7
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	3	0	8	7.0	26.0	19.8	7.7	27.0	0.0	54.4
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	0	5	10	20.7	55.7	19.3	8.7	14.2	0.0	42.2
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	3	0	0	16.5	39.5	19.9	16.9	40.0	0.0	76.8
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	0	0	0	13.8	17.8	20.0	3.2	33.3	0.0	56.5
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	0	0	8	20.7	38.7	[illegible]	5.0	36.3	0.0	60.3
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	0	0	6	3.8	23.8	17.3	6.2	35.9	3.3	62.7
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	3	0	15	7.8	35.8	19.5	8.2	18.5	0.0	46.3
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	3	0	6	17.8	46.8	19.5	9.6	34.3	0.0	63.5
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	3	0	15	20.8	56.8	19.7	13.1	9.3	0.0	42.1
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	0	0	20	7.8	41.8	19.4	8.3	4.8	5.4	37.9
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	3	0	6	23.8	36.8	19.5	4.9	40.0	12.4	76.8
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	0	10	10	8.8	48.8	18.6	9.9	2.9	0.0	31.4
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	0	10	10	0.0	40.0	17.6	3.0	40.0	10.7	71.3
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	3	0	6	3.8	32.8	18.8	11.5	11.7	11.1	53.1
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	3	0	20	21.9	64.9	17.8	8.8	18.8	1.3	46.7
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	0	0	14	20.7	54.7	19.3	16.6	24.6	0.9	61.4
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	0	0	8	13.6	31.6	20.0	8.7	28.0	0.0	56.7
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	3	0	10	11.8	44.8	20.0	10.2	16.4	0.0	46.6
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	1	0	4	20.7	35.7	19.6	10.0	33.8	1.3	64.7
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	3	10	0	25.0	48.0	19.1	6.7	16.5	0.0	42.3
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	3	0	10	17.6	38.6	19.9	11.4	27.0	0.0	58.3
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	0	0	0	7.6	17.6	18.4	13.9	16.2	0.0	48.5
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	4	0	10	11.8	45.8	20.0	6.8	40.0	0.0	66.8
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	3	10	6	0.0	23.0	19.6	5.4	16.1	16.5	57.6

Appendix E: The Transfer Payment Investment Index

This Transfer Payment Investment Index comprises the *Transfer Payment Investment* measure in the Investing in Disadvantaged Individuals and Communities subindex of the Policy Index. It attempts to measure the extent to which a state uses income maintenance payments and other programs as investments in self-sufficiency of the individuals who receive — or are targeted by — them.

We have taken the investments states have made in AFDC recipients as a proxy for this effort and commitment (as opposed to including *all* transfer payment recipients, such as people receiving unemployment compensation, Social Security, food stamps or other transfer benefits). In general, we have looked for signs that there is an effort to help increase the capacity of AFDC recipients to help themselves, and a commitment to provide the funds, programs and services necessary to enable them to become productive members of the economy.

The Transfer Payment Investment Index has three components: evaluation of AFDC welfare-to-work programs, use of Job Training Partnership Act (JTPA) funds for AFDC recipients, and the availability of support services for the training and employment efforts of AFDC recipients. Each component was weighted equally to arrive at the Index score.

AFDC Welfare-to-Work Programs

State efforts to offer employment and training services to AFDC recipients have garnered increasing attention recently. In this component, we evaluate the range of services, stability, and coverage of employment and training services offered to AFDC recipients other than those funded with JTPA monies.

Range of Service

By *range of service*, we mean the varying range of services offered to participants in welfare-to-work programs, including work experience, classroom training and on-the-job training. Each service offered receives the same weight, though we strongly endorse classroom training and on-the-job training efforts as more effective means of integrating AFDC recipients into the world of work.

Job search assistance is not included since every state offers such assistance. In addition, adequate data on economic development linkages and options, though highly desirable, was unavailable and therefore not included.

Coverage

By *coverage* we mean two things:

- *Extent:* whether at least 50 percent of AFDC recipients are offered employment and training services, with states offering less than 30 percent being additionally penalized.

- *Grant Diversion:* the extent of coverage of grant diversion programs. Grant diversion programs typically divert all or a portion of an individual's AFDC benefits to the individual's employer as a wage subsidy. The diverted portion would normally have reverted to the state as an offset to the individual's earnings. Instead, the state gives it to the employer as an incentive to hire the AFDC recipient. Because this represents a significant cash investment by the state in the individual's employment, we have singled it out as an index of state commitment.

Stability

By *stability*, we mean states which have appropriated enough funds to maintain stable program levels or expand their programs despite changes in federal funding.

In evaluating states' welfare-to-work programs, we encountered problems of insufficient data. Much of the best data was available from special studies and not from routinely updated reports. In addition, the problem of comparability of data between and among the states continues — states use different definitions for the same concepts (such as "participants" or "placements"), or do not differentiate their spending for AFDC recipients in the same way. A more fundamental problem is that there are no measures of the *impact* of welfare-to-work programs across states. We can only get a sense of the amount and quality of the effort being made.

JTPA Support for AFDC Recipients

The Job Training Partnership Act Program (JTPA) is the major employment and training program for the economically disadvantaged in the nation.

This component attempts to evaluate the extent to which JTPA funds are used to aid AFDC recipients. Specific amounts of JTPA funding for AFDC recipients by states were not available. Instead, we rely on an assessment of the types of services AFDC recipients receive from JTPA and the extent to which JTPA plays a role in welfare-to-work programs across a state.

Support Services

In order for AFDC recipients to make the transition from welfare-to-work successfully, they require certain basic interim support services — principally child care, health services and transportation assistance, both during and after they receive training assistance. In this component, we make use of three measures.

Child Care

The availability of child care is measured by:

- *Number Served:* the percentage change in the number of Title XX child care slots provided in FY 1987 as compared to FY 1986.

- *Funding Effort for Low-Income Children:* the percent of state spending on child care in FY 1986 as a percent of the number of low-income children under six years old in the state.

Medicaid Extension

Here we measure whether a state adopts the federal option for extending Medicaid coverage to former AFDC recipients for a period of time.

Overall Assessment

This is an assessment of how extensive a state's support services for welfare-to-work programs are overall.

Unfortunately, data on support services are inadequate and seldom comparable. We found nothing suitable for rating the provision of transportation assistance, for example.

Transfer Payment Investment Data

	AFDC WELFARE-TO-WORK PROGRAMS				JTPA SUPPORT	SUPPORT SERVICES			
	Range of Service Score (0-3)	Coverage				Child Care		Medicaid Extension Score (0-2)	Overall Assessmt.
		Extent Score (0-2)	Grant Divers. %	Stability	Score (1-4)	# Served % Change	$ Available per Poor Child		
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Alaska	2	2	0.0		1	−3.7	1,403.5	0	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Arkansas	2	2	0.0		1	0.0	60.3	0	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Colorado	3	2	5.2		3	6.2	299.6	0	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Delaware	1	2	0.0	■	2	0.0	304.9	0	■
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Georgia	0	1	0.0		1	0.1	196.8	0	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Idaho	0	2	0.0		2	0.0	2.3	0	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Indiana	1	2	0.0		2	−3.2	135.0	0	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Kansas	0	1	0.0		2	17.0	133.6	0	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Louisiana	2	1	0.0		1	−5.5	101.0	0	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Maryland	2	2	87.0		3	6.7	355.1	2	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Michigan	2	2	47.4		1	−3.6	44.1	2	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Mississippi	0	0	0.0		1	−16.2	52.5	0	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Montana	0	2	0.0		1	−0.2	19.6	0	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Nevada	3	2	0.0		1	0.0	31.8	0	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
New Jersey	2	2	72.7		1	0.0	371.3	2	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
New York	3	2	84.7	■	2	[illegible]	533.5	2	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
North Dakota	1	2	0.0		2	0.0	0.0	0	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Oklahoma	2	2	100.0		2	3.9	390.1	0	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Pennsylvania	3	2	0.0		1	5.5	471.6	0	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
South Carolina	2	0	0.0		3	5.4	190.8	0	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Tennessee	2	2	0.0		3	−11.9	152.5	0	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Utah	0	2	0.0		2	−9.4	337.9	0	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Virginia	0	2	0.0	■	2	−1.3	47.4	0	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
West Virginia	1	2	0.0		2	0.0	171.0	0	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Wyoming	0	2	0.0		1	−47.4	644.8	0	

For final *Transfer Payment Investment* score, rank and grade, please see *Policy Index*. For further detail on individual measures, please see the appendix text.

Transfer Payment Investment Data Sources

AFDC Welfare-to-Work Programs

Range of Service

Number of types of employment and training services (other than job search assistance) offered to participants in state welfare-to-work programs, 1986. 3 maximum.
Source: Demetra Smith Nightingale and Lynn C. Burbridge, *The Status of State Work-Welfare Programs in 1986: Implications for Welfare Reform* (Washington, D.C.: The Urban Institute, July 1987). Appendix Table VIII.

Coverage

- *Extent*
  Extent of coverage of a state's AFDC recipients under welfare-to-work programs. Score.
  A score of 2 is given to states with at least 50% coverage; states with less than 50% but greater than 30% coverage receive a 1; and a 0 is assigned to states with less than 30% coverage.
  Source: Demetra Smith Nightingale and Lynn C. Burbridge, *The Status of State Work-Welfare Programs in 1986: Implications for Welfare Reform* (Washington, D.C.: The Urban Institute, July 1987), pp. 109-110.

- *Grant Diversion*
  Percentage of state's public assistance population in covered counties that permit diversion of AFDC grants for welfare-to-work programs, 1986.
  Source: Nightingale, Demetra Smith and Burbridge, Lynn C. *The Status of State Work-Welfare Programs in 1986: Implications for Welfare Reform*. Washington, D.C.: The Urban Institute, July 1987, Appendix Table II.

Stability

States that have appropriated enough state funds to maintain stable program levels or expand their programs despite changes in federal funding, 1981-86.
Source: Demetra Smith Nightingale and Lynn C. Burbridge, *The Status of State Work-Welfare Programs in 1986: Implications for Welfare Reform* (Washington, D.C.: The Urban Institute, July 1987), p. iv.

JTPA Support for AFDC Recipients

JTPA Support

Role of JTPA in state AFDC work programs. Score.
A 4 is given to states where JTPA places a high priority on AFDC and delivers some work-welfare components in all local areas; a 3 to states where JTPA places a high priority on AFDC and delivers some work-welfare components in some local areas; a 2 to states where JTPA is encouraged to serve more clients and supports some work-welfare activities; and a 1 to states where work programs refer clients to JTPA, but there is no special priority on welfare.
Source: Demetra Smith Nightingale and Lynn C. Burbridge, *The Status of State Work-Welfare Programs in 1986: Implications for Welfare Reform* (Washington, D.C.: The Urban Institute, July 1987), Appendix Table V.

Support Services for AFDC Recipients

Child Care

- *Number of Children Served in Day Care*
  Children served or slots provided by Title XX Social Services Block Grant funds. Percentage change, 1986-1987.
  Source: Children's Defense Fund, draft statistics for *State Child Care Fact Book, 1987*, Washington, D.C.

- *Child Care Expenditures per Poor Child*
  Total Title XX funds available per poor child under 6 for child care assistance, FY 1986.
  Source: Children's Defense Fund, draft statistics for *State Child Care Fact Book, 1987*, Washington, D.C. Calculations by The Corporation for Enterprise Development.

Medicaid Extension

Optional state extensions of Medicaid beyond mandatory nine-month period to families no longer AFDC-eligible because they have earnings above the income disregard. Score. A score of 2 is given to states that have extended Medicaid for six months, a 1 for a three month extension, 0 if no extension is allowed.
Source: U.S. Dept. of Health and Human Services, Office of Family Assistance, *Characteristics of State Plans for Aid to Families with Dependent Children under Title IV-A of the Social Security Act* (Washington, D.C.: Government Printing Office 1987), p. 360.

Overall Assessment of Support Services

States that provide extensive support services to welfare-to-work programs, 1986.
Source: Demetra Smith Nightingale and Lynn C. Burbridge, *The Status of State Work-Welfare Programs in 1986: Implications for Welfare Reform* (Washington, D.C.: The Urban Institute, July 1987), p. 111.

It is in areas highlighted by (the) CFED report that America's economic future will be determined.

[illegible]

CFED's new report is the best guide to the groundbreaking policies that states have created to boost business competitiveness. Making the Grade is for businesses planning to move up or stay on top.

Making the Grade has totally changed the terms of the debate about economic development in our state.

State Senator [illegible]

[illegible]

Finally, there is an economic climate index that recognizes we will compete by the quality of our minds, not the poverty of our wages.

[illegible]

[illegible]

Economic Climate Project Sponsors

[illegible]

The Corporation for Enterprise Development

[illegible]